MacWEEK

01.29.96 *The Newsweekly for Macintosh Managers* VOLUME 10 NUMBER 4

PCI card to cut Fast Ethernet costs by half

By Joanna Pearlstein

A newcomer to the Mac market is preparing to pull the rug out from under networking prices. Lite-On Communications Inc. in April expects to release a Fast Ethernet card for PCI Macs with a street price of about $100.

Lite-On will offer cards based on its own chips and those from Digital Equipment Corp. It will ship two dual-speed 10/100BASE T cards, which will list for $129 and $169, and a pair of low-cost 10BASE T PCI cards for $69 and $89.

Lite-On's cards will be about half the price of comparable cards from market leaders such as Asanté Technologies Inc. of San Jose, Calif.; Dayna Communications Inc. of Salt Lake City; and Farallon Computing Inc. of Alameda, Calif.

Farallon's dual-speed PCI card lists for $249, and Dayna's contender, the BlueStreak PCI, has a street price of $225. Asanté's com-

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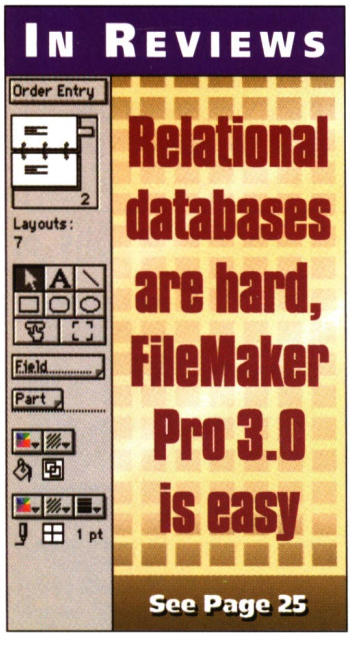

Apple: Stay the course?

Sun not set on acquisition; CEO hangs on

By Jon Swartz

Just a month ago, the prospects of Sun Microsystems Inc. buying Apple seemed as likely as Bill Walsh returning to the San Francisco 49ers.

According to sources, Apple has been in discussions with Sun since October, and representatives of the Mountain View, Calif.-based workstation maker were frequently seen visiting the executive wing of Apple's Cupertino, Calif., headquarters.

However, MacWEEK has learned that, as of press time, Apple and Sun are not close to signing a deal, much less setting a price for the stock. In fact, despite published reports, even relatively simple matters, such as which parts of Apple's business Sun would be interested in acquiring, have not been settled. Sources close to the company said Apple is continuing discussions with several suitors and potential strategic partners and that no option, including remaining independent, has been excluded.

A former Apple executive said top management had been overly confident that a deal with Sun was at hand and failed to develop a complete restructuring program in case the deal fell through by the end of 1995.

ED CALDWELL

Apple shareholders filed out of last week's meeting in Cupertino, Calif., with few answers or reassurances from the company's board.

Apple's $69 million loss last quarter set back the Sun negotiations, and Apple had to scramble to restructure, sources said. The result was an incomplete plan.

"[The restructuring] is simply a reiteration of strategies in place for

See Apple, Page 64

Investors are shaken, not stirred

By Jon Swartz and Mark Hall

Cupertino, Calif. — Shareholders trekked to Apple headquarters last week to discover whether the company had a plan to deal with its recent problems or if there were a buyer waiting in the wings. They left disappointed on both counts.

Apple Chairman A.C. Mike Markkula Jr. told a standing-room-only audience of more than 300 that he understood their frustration. But he and CEO Michael Spindler offered few specifics on how they intend to return Apple to profitability.

In addition to 1,300 layoffs, which Spindler said would reduce overall administrative costs by 10 percent by the end of the fiscal year, other cost-cutting measures will

See Shareholders, Page 64

Agfa scanning the low end

By Kristin Balleisen

A new scanner from Agfa will push the bottom of the company's price envelope down and may signal a new focus on the low end of the imaging market, sources said.

A color flatbed device priced at $399 is planned for a spring rollout. The new scanner, tentatively called SnapScan, will reportedly be based on a Microtek engine and accommodate both letter- and legal-size images. The SnapScan's CCD (charge-coupled device) array will scan images at an optical resolution of 300 by 600 dpi and capture eight bits each of RGB data per pixel.

Sources said Agfa, a division of Bayer Corp., of Ridgefield Park, N.J., is considering delineating a separate segment of the company that will focus solely on marketing and sales to the entry-level market. The move would mirror an announcement from Agfa rival Linotype-Hell Co. of Hauppauge, N.Y., which this

See Agfa, Page 62

System 7.5.3: Major update due by March

Fix will be in for Open Transport

By Clifford Colby

Apple is expected to test its own unification theory in February or March by shipping an update to the Mac system software.

System 7.5 Update 2.0 will reportedly roll into one release everything offered in previous System 7.5 updates plus several new features, bug fixes and native parts. The update will change the version number of the OS to 7.5.3, according to sources.

System 7.5.3 will reportedly rectify the disparity among Macintosh platforms, giving 680x0 machines and NuBus- and PCI-based Power Macintoshes the same system software. Among the expected additions to System 7.5.3 will be a new version of Open Transport, which was previously available only for PCI-based Macintoshes. Open Transport 1.1 will run on 68030- and 68040-based Macintoshes and be tuned for faster networking links, including Fast Ethernet. Open Transport 1.1 will also be optimized for server applications.

System 7.5.3 will reportedly include an updated Finder that will

See OS, Page 62

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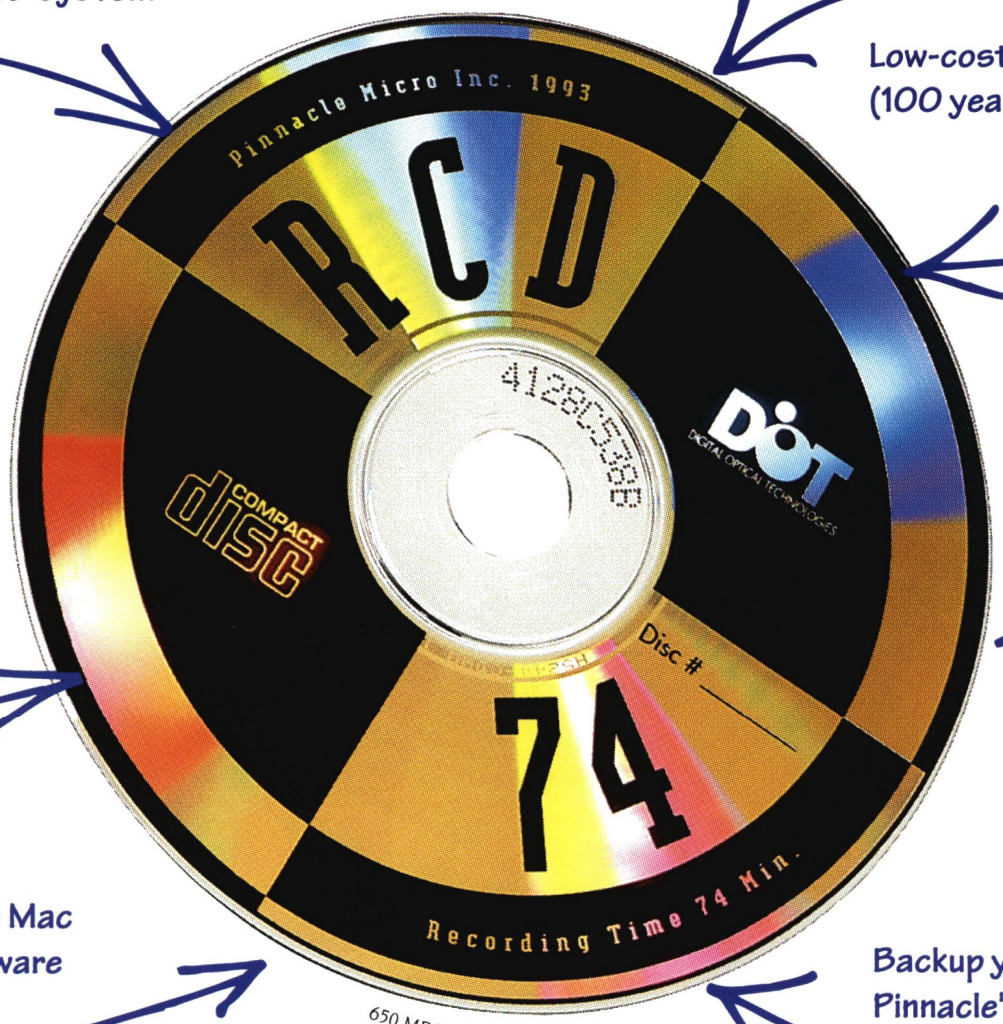

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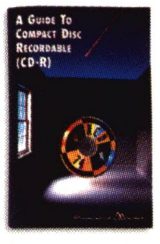

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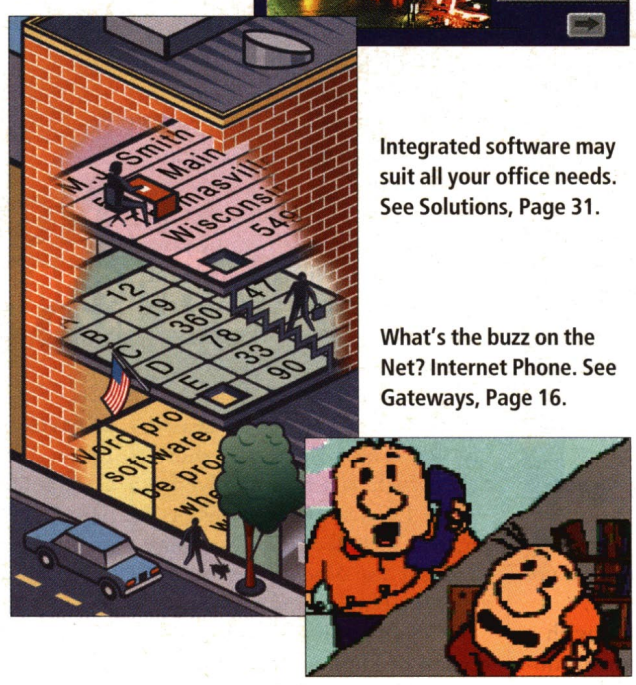

Integrated software may suit all your office needs. See Solutions, Page 31.

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MACWEEK INSIDER MARK HALL

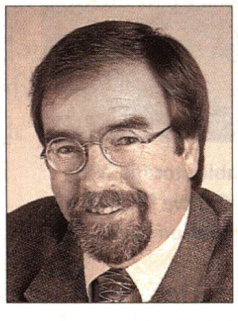
Hoping for a good rumor

If Apple could deposit rumors about its "imminent" sale in the bank, it wouldn't have to worry about making money selling Macs. Its bottom line would balloon to gargantuan proportions, obviating the severe criticism the company's management and board of directors endured at last week's shareholders meeting.

Alas, these kinds of rumors are, almost by definition, worthless.

As James Staten wrote in this space last week, a combination of Sun Microsystems Inc. and Apple makes a lot of sense.

It also makes a lot of sense for Microsoft Corp. to buy Intel Corp., or vice versa. Is either deal likely to be completed? Who knows?



This much we do know: Executives at Apple and Sun have had discussions that involve establishing the value of all or part of Apple's operations. Apple has had these discussions before with other companies. Sun has had similar discussions with other companies. It happens all the time. It's the way business is done these days. People buy. People sell. Companies come and go. But keep in mind that there are always far more discussions than deals.

What makes this round of "what-if" conversations fascinating to so many people is the sad state of Apple's balance sheet. Had the company been able to show a decent profit last quarter, the brouhaha about (insert company name here) gobbling up Apple would not be so loud. Apple's management compounds the problem by offering a less-than-comforting plan to rescue itself from, well, itself.

Part of the problem is Apple's so-called restructuring. Industry observers and shareholders alike say they believe Apple's latest plan is too little or at least too much of the same old stuff that hasn't worked before. Worse, Apple's top brass hint openly that more changes are in the offing. Well, what are they? You get the idea they just don't know. It's no wonder that people pin their hopes on the arrival of a white knight that can truly shake up the company.

Whether Apple is finally sold to Sun or anyone else is almost beside the point. The market is looking for a dramatic change at Apple, and it has not seen it.

The layoffs don't seem to go deep enough. Cutting the admittedly huge panoply of Mac models doesn't seem that significant. Shuttering eWorld is no real surprise.

Apple hints openly of more changes. Well, what are they? Does Apple know?

And when top executives claim they can bring Apple out of its doldrums by making product planning more efficient, they begin to sound like politicians in an election year describing how they intend to balance the budget. None of it seems to ring true.

The tragedy here is not about Apple going out of business. I assure you, that won't happen. Keep in mind the 22-plus million Macs out there. The $12 billion revenue stream. The No. 2 operating system in the world. The company's top position in education and consumer markets. There are too many fundamentally sound aspects of the Macintosh platform to make Apple a candidate for the corporate trash heap. The fact that it is so often the subject of acquisition rumors speaks volumes as to the value of the company.

No, the tragedy is that Apple's top management and board let rumors grip them by the throat. They hurt their own credibility and the company's fortunes at every turn.

Not only do their plans for salvation seem half-baked, their public pronouncements are contradictory.

Everyone gets confused when the company chairman says, "Apple is not for sale," and the next minute offers a standard "no comment on rumors" statement. What is he saying? I asked those who should know inside Apple. They told me "No comment."

Gee, thanks.

It's no wonder the rumors spread. They seem to have more substance than what Apple management has to say. They also seem to offer the only hope. □

Mark Hall is MacWEEK editor in chief and can reached at mark_hall@macweek.com.

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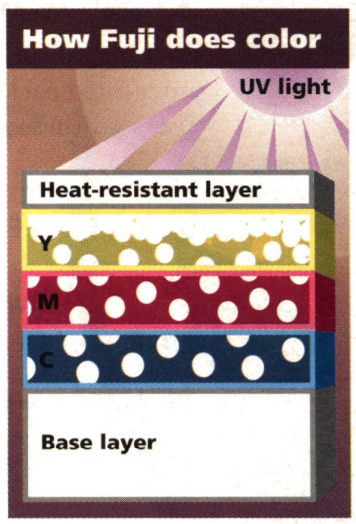


By Kristin Balleisen

Employing a new imaging technology that could give dye sublimation a run for its money, Fuji Photo Film USA Inc. is readying an eco-friendly printer whose only consumable is special paper.

The Fujix NC-500 digital color printer, due by late spring, will sell for an estimated $8,000 and will feature Fujifilm's Thermo-Autochrome technology. According to Fuji, the new system uses heat and light from an ultraviolet lamp and the company's multilayered paper to create a CMY image. As a result, the dry-print device will not require ribbons, toner or chemicals.

The 300-dpi device will output letter, A4-size and half-size prints in about two minutes and will closely rival dye-sublimation quality, Fuji said.

The Fujix NC-500 may also edge out dye-sublimation prints in the cost arena; its consumables cost an estimated $2 per print, while dye-sublimation output averages between $2.25 and $2.50 per print.

Fuji said that although final specifications have not yet been set, the printer will likely ship with 24 Mbytes of RAM. The printer will ship with an Adobe Photoshop plug-in; the initial release will not include PostScript, however.

The NC-500 will ship with a sheet feeder that will accommodate 50 sheets of the company's specialized media. A half-sheet tray will also be available.

John McIntyre, the managing editor of Hard Copy Supplies Journal, based in Newtonville, Mass., said, "If [the printer] has comparable or better technology than dye-sublimation printers, it is a direct threat to those [printers]."

However, he said, "It is really critical [for Fuji] to do PostScript," if it hopes to target the graphics market.

Fuji Photo Film USA Inc. of Elmsford, N.Y., can be reached at (508) 583-5239 or (800) 755-3854; fax (508) 583-9904. □

Java to spill onto Mac in February

By James Staten

JavaSoft, Sun Microsystems Inc.'s newest division, said last week that Java for the Mac will ship in February; meanwhile, other companies plan to deliver Java solutions by March.

▶ **JavaSoft** of Mountain View, Calif., said a public beta of Java 1.0 for the Mac will be available at http://java.sun.com. A final version is due in March.

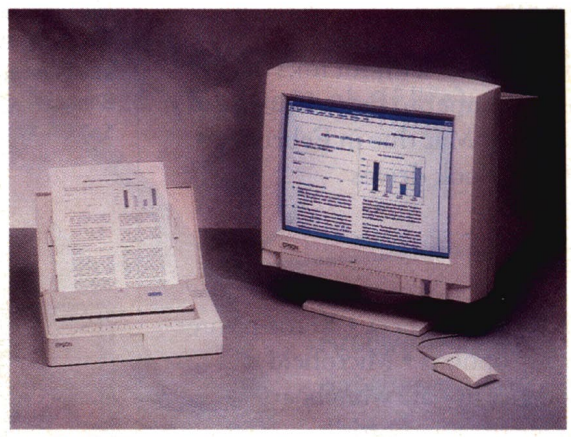
JavaSoft said the Mac version trails the Windows 95, Windows NT and Solaris versions, released last week, because of staff shortages, which have been resolved.

Java 1.0, a software developers kit, will include the Virtual Machine for the Mac OS, an applet viewer, a compiler and a debugger.

JavaSoft said it is working on a version of HotJava Web browser that will run on the Mac, but has not scheduled a release date.

▶ **Netscape Communications Corp.**, also of Mountain View, announced last week that Navigator 2.0 for the Mac, expected to ship in final form Jan. 30, will not provide Java support. Navigator 2.1, due later this quarter, will add Java.

▶ **Spyglass Inc.** of Naperville, Ill., said last week that it has licensed Java and will add it to a forthcoming version of its Enhanced Mosaic browser due this quarter. Microsoft Corp.'s Internet Explorer is based on Spyglass' browser. □



Epson's diminutive Personal Document Station will combine scanning and OCR functions in one compact package.

New Epson scanner to rival PaperPort

By Matthew Rothenberg

Epson America Inc. is preparing a challenger to Visioneer Inc.'s popular PaperPort document-scanning package.

The Epson Personal Document Station, slated to ship in March for $449, will be based on a proprietary scanner engine and OCR software for converting sheet-fed documents into editable text.

The PDS' CCD (charge-coupled device) array will capture eight-bit gray-scale document images at a resolution of 300 dpi. The sheet feeder will accommodate up to 10 legal- or letter-size pages. It will ship with an attachment that will let users scan up to three business cards at a time. According to Epson, the system will be able to process four pages per minute.

The OCR software will automatically differentiate between text and images. Epson's Text Enhancement Technology will improve the accuracy of scans by eliminating background colors and extraneous marks on a page. The scanner will be bundled with e-Paper, document-archiving and management software from Second Glance Software of Bremerton, Wash.

The PDS will compete with PaperPort Vx, a $369, 400-dpi image-scanning device that also supports eight-bit gray scale. The PaperPort, from Visioneer of Palo Alto, Calif., comes bundled with OmniPage Lite OCR software from Caere Corp. as well as CardScan SE, business-card scanning software from Corex Technologies Corp. (see 10.09.95, Page 4).

Hewlett-Packard Co. of Palo Alto offers the $349 ScanJet 4s, which is based on the Visioneer technology (see 11.06.95, Page 1).

Epson America Inc. of Torrance, Calif., is at (310) 782-0770 or (800) 289-3776, Ext. 3000. □

Roizen signs on with Apple

By Andrew Gore

Heidi Roizen, a longtime advocate of Macintosh developer issues, last week became vice president of Apple developer services.

Roizen, who founded and served as CEO of T/Maker Co., will be in charge of Apple evangelism and developer support.

"[Roizen] has been a successful chief executive in the software community we want to get closer to," said David Nagel, senior vice president of Apple R&D. "She's extremely well-known and well-respected among ... developers. She's well-connected and knows the players and will be able to get us the accurate feedback we need to make good decisions."

Developers greeted Roizen's appointment with enthusiasm. "[Something] missing at Apple has been a very pragmatic viewpoint of what it means to be a developer," said David Winer, a longtime Mac developer. "Apple needs more input from people who haven't been insulated [inside the company]." □

VST puts MO drive in PowerBooks

By Joanna Pearlstein

Adding removable storage to its PowerBook product line, VST Technologies has announced a magneto-optical drive for the PowerBook 5300 and 190 series.

Based on the DynaMO mechanism from San Jose, Calif.-based Fujitsu Computer Products of America Inc. (see 07.10.95, Page 4), the MO drive fits into the new PowerBooks' expansion bays. The VST Magneto-Optical can read and write 230-Mbyte and 128-Mbyte 3.5-inch MO disks. Expected to ship in late February, the $449.95 drive boasts a transfer rate of 1.6 Mbytes per second. It weighs 13 ounces and is 0.75 inches high.

Portable removable storage: VST Technologies' MO drive fits into the PowerBooks' expansion bays.

VST has added a $779.95, 1-Gbyte hard drive to its storage lineup; the 1.0GB Hard Drive is set to ship March 1. Prices for VST's other expansion-bay hard drives have dropped: The 810-Mbyte drive is now $699.95, down from $749.95, and the 1.2-Gbyte drive now sells for $879.95, down from $999.95. VST also offers a 540-Mbyte IDE hard drive for $549.95.

All of VST's drives require the company's drivers, and all can be inserted and mounted while the PowerBook is running.

VST Technologies, formerly known as VST Power Systems Inc., of Concord, Mass., can be reached at (508) 287-4600; fax (508) 287-4068. □

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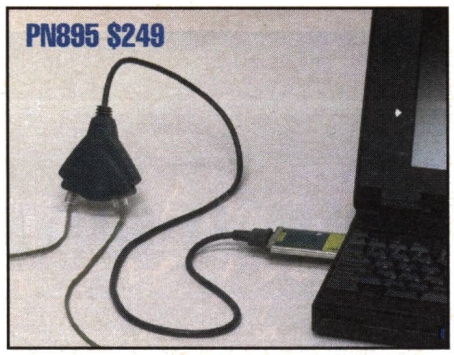

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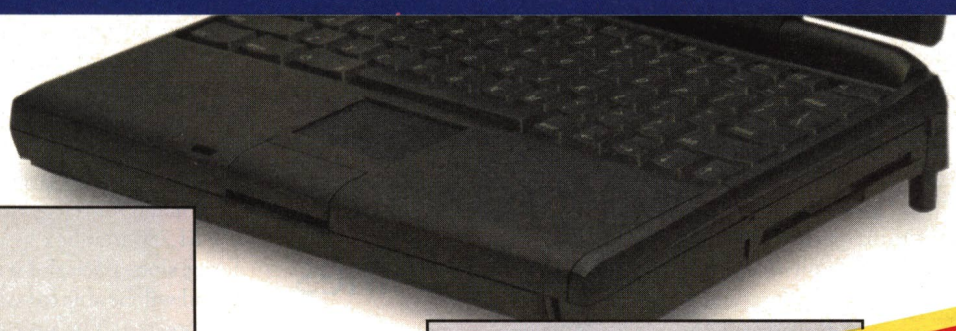

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New spreadsheet keeps it simple

Casady & Greene preps entry-level app

By Jon Swartz

Casady & Greene Inc. is readying a spreadsheet that it hopes will do for numeric calculations what the Macintosh did for hardware ease of use.

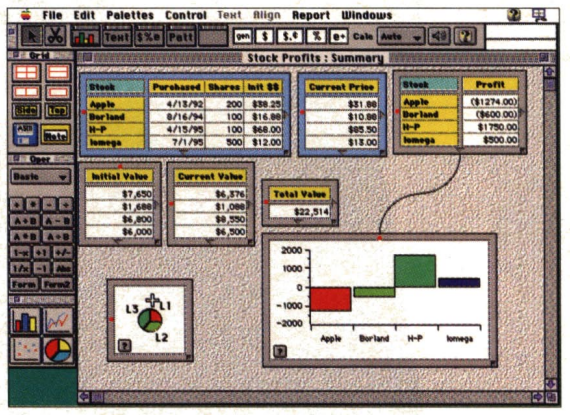
The company this month announced Keep It Simple Spreadsheet, object-oriented software with a drag-and-drop interface. Shown at the San Francisco Macworld Expo as Solutions!, the renamed application is scheduled to ship this spring with a street price of about $129.

Aimed at the small-business, home and education markets, the program will let users create a spreadsheet by dragging holders for numbers, mathematical operators, charts and labels from tool bars and palettes. The elements can then be linked by drawing relationships between them; data, functions and relationships can be quickly changed at any time.

According to Casady, KISS' presentation of formulas as objects can reduce the logical errors common in traditional spreadsheets. The software will also let users enter data into cells directly instead of requiring a separate entry field.

"I really like the idea of not being confined to a single grid," said beta tester Dan Shafer, director of technology at San Francisco-based Salon Internet Inc. Shafer said the program should appeal to "non-number crunchers."

A KISS document will start with a single master view or report. Users will be able to then add other views, which can show a subset of the data. KISS operators will allow users to compare results for different input values and speedily run what-if analyses. Results can be displayed in several graph formats, including pie and bar charts.



The Keep It Simple Spreadsheet will give a graphical object-oriented interface to data and calculations.

The program will come with a variety of templates, including spreadsheets for comparing auto buying or leasing, stock portfolio analysis, expense reports, and budget projections.

In addition, the software will support Custom Operators that will provide a plug-in architecture for third-party developers to beef up the program's built-in operation set. The company said it plans to develop KISS into an OpenDoc container by the end of the year.

Casady & Greene Inc. of Salinas, Calif., is at (408) 484-9228 or (800) 359-4920; fax (408) 484-9218; c&g@casadyg.com; http://www.casadyg.com. □

Vendors bolster whiteboard lines

By Matthew Rothenberg

Smart Technologies Inc. and Microfield Graphics Inc. chalked up new additions to their electronic whiteboard lines this month.

Smart's new Rear Projection Smart Board 420, available now for $18,000, features a 42-inch touch-sensitive screen with a touch resolution of 115 points per inch. The wood-and-metal cabinet includes a 640-by-480-pixel NEC MultiSync LCD projection panel.

The device uses a serial interface and comes with styluses in red, green, black and blue, as well as an eraser.

Microfield introduced new software for its three SoftBoard models: the $2,795 SoftBoard 205, $3,295 SoftBoard 201 and $3,995 SoftBoard 203.

SBTemplate, available now for $350, lets users draw a template or underlay on the whiteboard's surface, then display an identical template on screen. Users can write and erase over the template without affecting it, Microfield said. According to the company, users can apply templates to the porcelain-coated steel surface of the whiteboard via silk screening and vinyl tape. Users can choose a PICT file for a template.

SBProjection, also $350, lets owners of an LCD panel or projection system project any application onto the SoftBoard surface and then control the application via the SoftBoard's stylus pen, which acts as a mouse.

Smart Technologies Inc. of Calgary, Alberta, can be reached at (403) 245-0333; fax (403) 245-0366; sales@smarttech.com.

Microfield Graphics Inc. of Beaverton, Ore., is at (503) 626-9393 or (800) 334-4922; fax (503) 641-9333; sb_info@mfg.com. □

Xerox printer offers raft of paper options

By David Morgenstern

Xerox Corp. this week will welcome a flexible new desktop laser printer to its DocuPrint product family.

Aimed at workgroup printing, the $2,850 DocuPrint 4517mp draws on standard copier features, including duplexing, collation and mailbox-style output trays.

Based on a Fuji-Xerox engine, the legal-size printer provides 1,200-by-600-dpi resolution at speeds up to 17 letter-size pages per minute, the company said. The model supports edge-to-edge printing, which lets images nearly cover a full sheet of paper.

Users can add many input and output options to the printer. A $445 internal duplexing assembly can handle print speeds up to 13 ppm. In addition to the built-in 250-sheet tray, the 4517mp supports up to two $300 500-sheet cassettes. The model comes standard with a 250-sheet output tray, and users can add a $445 500-sheet catch tray that offsets each print job.

Slated for release in the second quarter is a $1,230 mailbox assembly with 10 letter-size slots. Each slot will hold up to 50 sheets and will be able to be locked and password-protected. The unit will also be able to be used as a collator for print jobs.

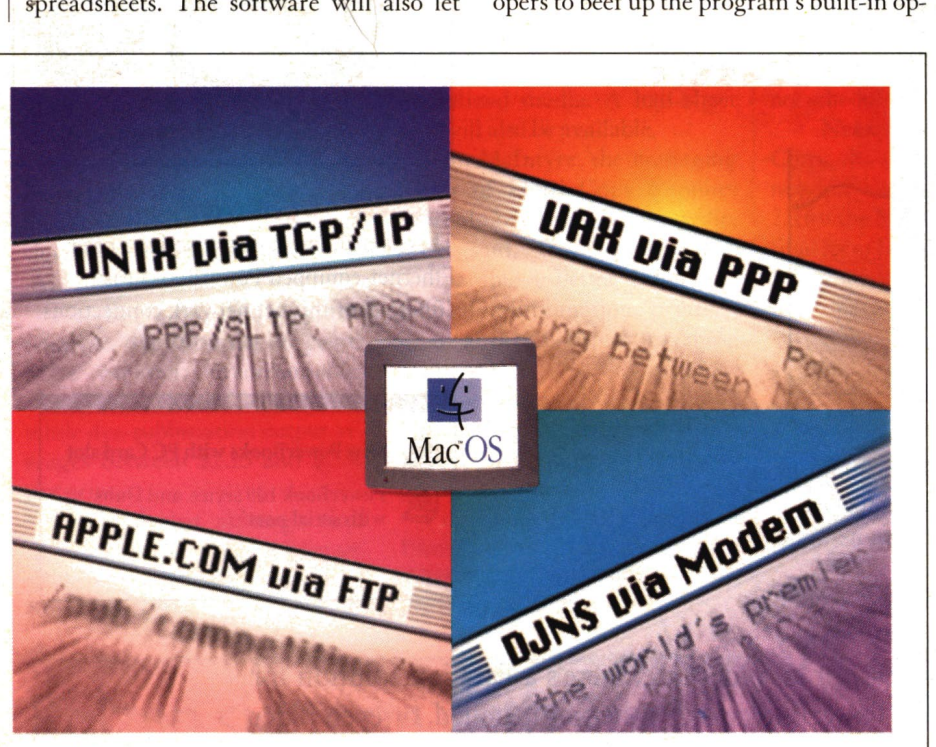
The 4517mp uses a 25-MHz Intel i960 RISC processor and comes standard with 6 Mbytes of RAM, which can be expanded to 64 Mbytes. The printer offers PostScript Level 2 and HP PCL 5E emulation. It will come with 35 Type 1 and 45 PCL fonts and a pair of PCMCIA slots for fonts and forms.

The printer will ship with bidirectional, parallel and Ethernet interfaces. Optional LocalTalk and token-ring interfaces are $560 and $100, respectively.

A PCL 5E model without Ethernet or PostScript costs $2,070.

Xerox Corp. of Rochester, N.Y., can be reached at (716) 442-4028 or (800) 349-3769; fax (716) 442-1339; http://www.xerox.com. □

The DocuPrint 4517mp model on the left sports an optional collating 10-slot mailbox output tray; the other has a catch tray that offsets each print job.



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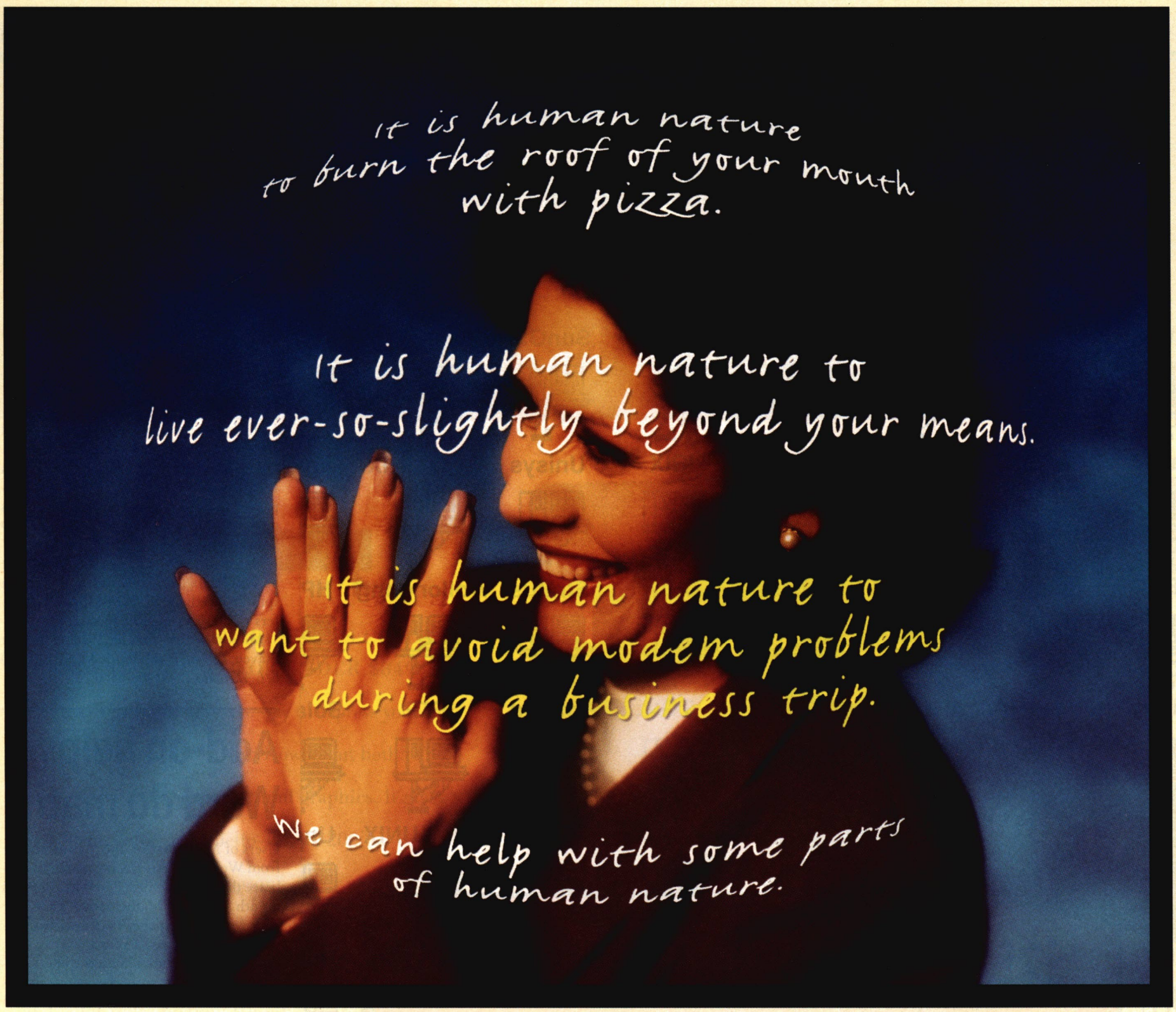
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Microtech unveils new Mac drives

By David Morgenstern

Microtech International Inc. in February will ship new storage devices for mobile, network server and desktop Mac models.

Aimed at users of digital cameras, the company will release Digital Photo Album.p, a smaller, lower-cost model in its PC Card reader-writer line. The company said it expects a street price of about $385.

Slightly less than an inch tall, the new drive has a footprint of 3 by 5 inches. It has a single slot that supports Type I, II and III cards and comes with both SCSI and HDI-30 cables. Microtech's original two-slot reader-writer costs $665.

The company will also ship RoadRunner MO 230, a 3.5-inch magneto-optical drive for the PowerBook 5300 and 190 models. It will have an estimated street price of $469. Based on a Fujitsu mechanism, the drive fits into the expansion bay and will come with two blank 230-Mbyte cartridges.

In other MO news, Microtech will uncrate Blue MO 2600, a high-capacity 5.25-inch MO drive. The new $2,875 drive is based on a Maxoptix mechanism and supports media capacities of 2.6 Gbytes, 1.3 Gbytes and 650 Mbytes.

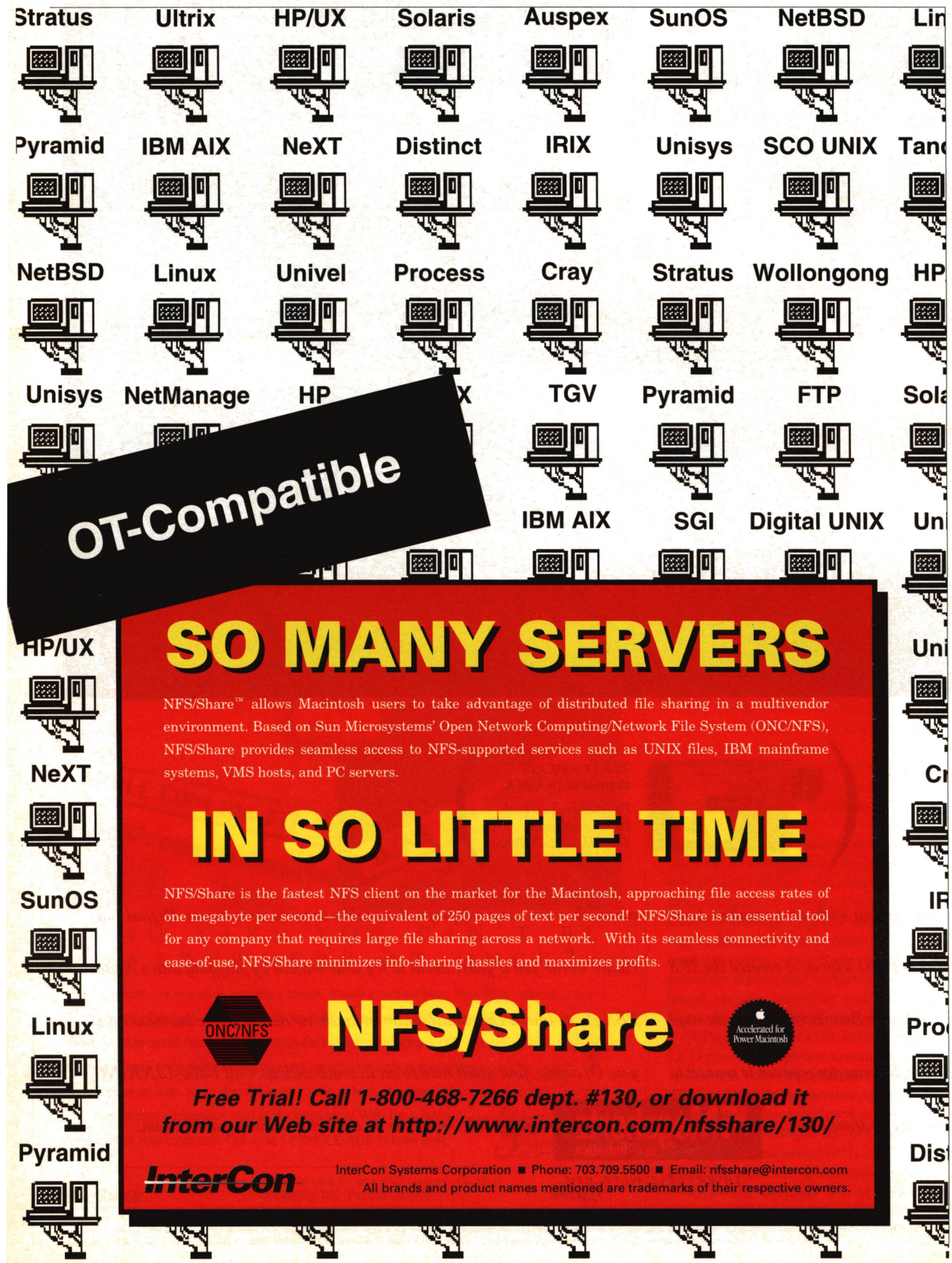
The unit has a sustained data transfer rate of 3.3 Mbytes per second, Microtech said. It will come with a 2.6-Gbyte cartridge.

Network managers with heavy-duty storage needs can look to Microtech's WorkGroup AutoDAT 136 jukebox. The $6,995 autoloader holds up to 17 DAT cartridges and provides a maximum capacity of 136 and 272 Gbytes for 2-to-1 and 4-to-1 compression ratios, respectively. It uses a Sony Digital Data Storage-2 mechanism and will come with 16 tapes and a cleaning cartridge.

Microtech this month released Blue Storm LC drives, entry-level models of the company's Blue Storm line. The new enclosures do not come with the front-panel LCD found with the usual Blue Storm drives.

Based on Conner mechanisms, the $1,199 2-Gbyte model has a 5,400-rpm spindle speed; the $1,549 4-Gbyte drive offers a 7,200-rpm spindle speed.

Microtech International Inc. of East Haven, Conn., is at (203) 468-6223 or (800) 626-4276; fax (203) 468-6466. □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Add-on helps Word do math

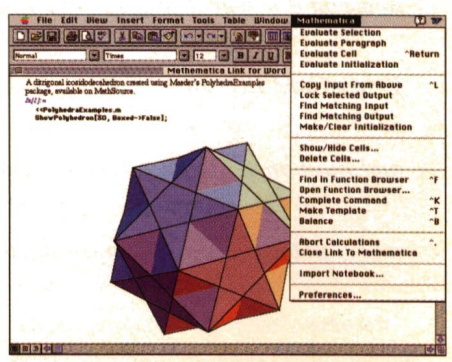
Users of Mathematica, the math software from Wolfram Research Inc., can now embrace the written word. The company this month released Mathematica Link for Word, an add-on that performs calculations within Microsoft Word.

Mathematica Link lets users edit calculations and flow text around existing calculations. It can selectively hide elements and add text annotations to formulas and graphs.

The $129 software requires Mathematica 2.2.2 or higher and Microsoft Word Version 6.0 or later.

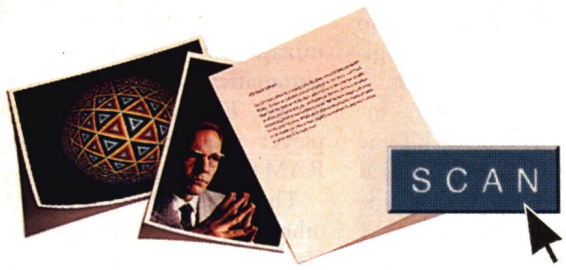
Wolfram said the add-on uses MathLink, a proprietary communications protocol, to call Mathematica's kernel from within the word processor. Word's built-in spelling and grammar checkers will bypass the mathematical text when searching a document.

Wolfram Research Inc. of Champaign, Ill., is at (217) 398-0700 or (800) 441-6284; fax (217) 398-0747; http://www.wri.com. □



Wolfram's Mathematica Link for Word places math features into Microsoft Word.

The pen may be mightier than the sword, but the Scanner blows them both away.



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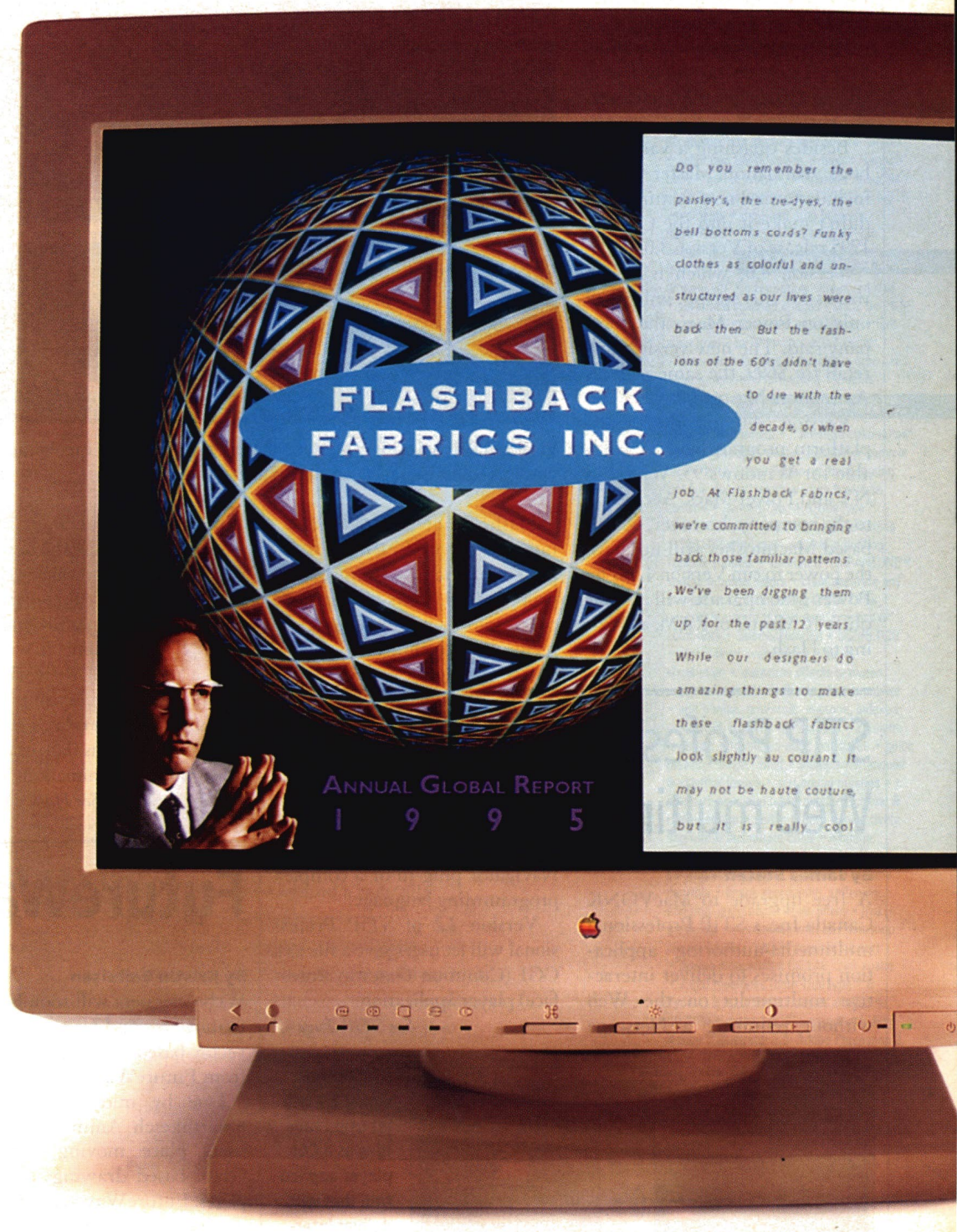
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MacUser RATED 5 1/2 OCTOBER 1995

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AGFA RIPS IT UP

Agfa has a PostScript Level 2 RIP based on three PowerPC 604 chips for its ChromaPress digital printing system.

Hash rehashing 3-D app, will offer free upgrade

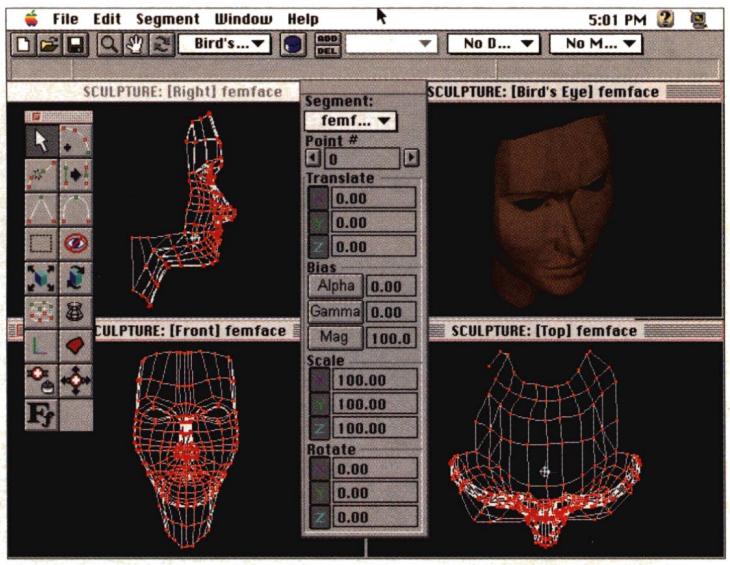
By Kelly Ryer

In a peace offering to its Mac users, Hash Inc. is working on a major upgrade to Animation: Master. Version 4.0 will be free to current users of the character-animation program.

Besides quashing a variety of bugs, Animation: Master 4.0 will include several new features that didn't make it into the October 1995 release of Version 3.0.

Version 4.0, which is in the works for this spring, will work only on Power Macs, the company said. The new version will retail for $699, the same price as Animation: Master 3.0.

Version 4.0 of the cross-platform program will be available for Windows 95, Windows NT and Power Macs. According to the company, however, 680x0-based Macintoshes will not have the power to run Version 4.0. The Power Mac upgrade will also require 16 Mbytes of RAM, according to Hash.



Version 4.0 of Animation: Master will add spline-modeling capabilities and particles to the character-animation package.

Hash acknowledged that Macintosh users of Version 3.0 experienced some compatibility problems. "3.0 was a long, hard port," said Steve Sappington, director of technical support. "We've fixed a lot of bugs."

Besides bug fixes, the new version will include motion-capture input and output, support for particle effects and physical dynamics, and spline modeling. It will feature a distributed network renderer. In addition, a compositing module will let users layer channel effects, such as lens flare or explosions, with their animations.

See Hash, Page 12

E-magine lets users enhance portfolios

By Kelly Ryer

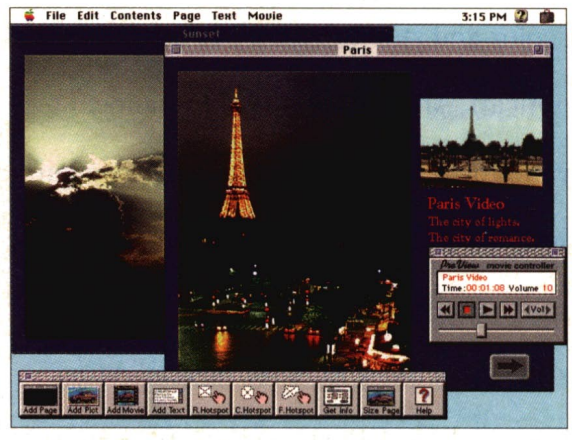
E-magine this month released ProView, a $99 tool designed to help nonprogrammers create digital portfolios and presentations.

The software lets users incorporate images, QuickTime movies and sounds into digital portfolios. Each page can include hot spots that can play sounds or direct movement to other pages. Image and movie sizes can be controlled using standard QuickTime compression options.

ProView then creates a runtime engine, called a ProViewer, in a proprietary format. Users can decide whether to compile the media files within the viewer or access them externally; the runtime engine adds less than 100 Kbytes to the size of the media. According to the company, playback is enhanced by RAM optimization, which closes windows automatically when they are not in use. E-magine said that the player requires 2.5 Mbytes of RAM for the application.

The company said it plans another update in mid-February. Version 1.2 will incorporate fade transitions between pages as well as drag-and-drop support for all elements. The upgrade will also let users import JPEG-compressed images, E-magine said.

E-magine of New York can be reached at (212) 262-4394 or (800) 603-1474; fax (212) 262-4394; http://www.panix.com/~e-magine/. □



Making quick work of creating digital portfolios, ProView lets users embed graphics, sounds and QuickTime movies into a runtime engine.

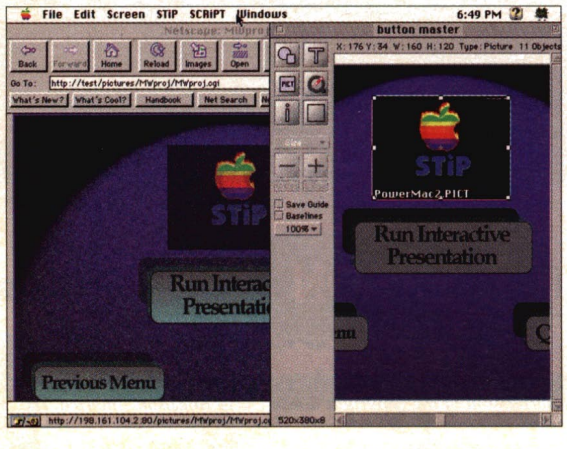
STiP Professional 2.2 to help Web multimedia interact

By James Staten

A free upgrade to MacVONK Canada Inc.'s STiP Professional multimedia-authoring application promises to deliver interactive multimedia on the Web without requiring a Netscape Navigator plug-in or a complex programming language.

Version 2.2 of STiP Professional will let users save a file as a CGI (Common Gateway Interface) player application.

See STiP, Page 12



STiP Professional 2.2 will let users save files as a CGI player application that will deliver interactivity to Web users.

FutureWave to put vectors on-line

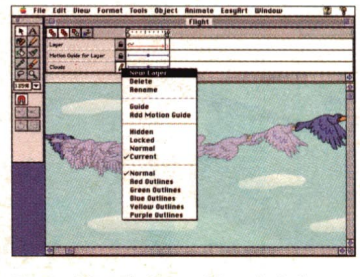
By Kristin Balleisen

Web designers will soon be able to move beyond bit maps with a vector-based animation package from FutureWave Software Inc.

Due by midyear for $249, SmartSketch Animator will let users place moving or static vector-based drawings on Web pages. FutureWave said the new product will include drawing and painting functions from the company's low-cost SmartSketch drawing and illustration package (see 08.07.95, Page 87).

The package will comprise an editor; a stand-alone viewer; and a 150-Kbyte, Java-based plug-in for Netscape Navigator 2.0.

Users will be able to create animations and save them as QuickTime videos or in the company's proprietary vector-based file format. SmartSketch Animator will also let users import PICT, GIF and JPEG files from other illustration programs.



FutureWave's SmartSketch Animator will let designers add vector graphics and animations to the bit-mapped Web universe.

The application will include gradient and layering tools, keyframe-animation functions, and a time line; users will be able to create motion paths. According to FutureWave, the company's rendering engine will let users anti-alias pictures as they are being drawn.

FutureWave Software Inc. of San Diego is at (619) 637-6190 or (800) 619-6193; fax (619) 637-9032; futurewav@aol.com. □

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miro delivers low-cost PCI video card

By Carolyn Said

Marking a new price-performance equation for digital video, miro Computer Products Inc. this month rolled out a $1,199 PCI card at Macworld Expo in San Francisco.

Due by March 1, the miroMotion DC20 will digitize 60-frame-per-second video in a 640-by-480 pixel window, the company said.

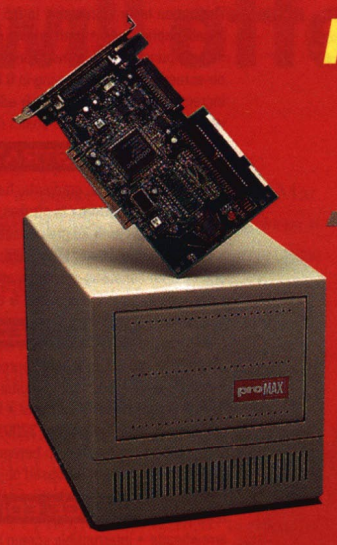
"This should broaden the market for digital video production at corporate quality," said Andy Fischer, editor of the PC Graphics Report in Tiburon, Calif. "They can reach more people at this price point than Truevision [Inc.] or Radius [Inc.] have been able to attract."

Using on-board Motion-JPEG compression, the card will achieve a maximum data transfer rate of 3.5 Mbytes per second and compression ratios ranging from 5-to-1 to 100-to-1, the company said. Users will be able to output video to Super8, Hi-8, VHS and S-VHS video devices. Input and output will be in NTSC, PAL (European) or SECAM (French) video format.

The device will come with a two-year warranty. It will be bundled with a full version of Adobe Premiere and Adobe Photoshop LE.

Under the name miroVideo DC20, the board has been available for Intel-standard PCs since November, priced at $999 because it comes with a limited Premiere only.

miro Computer Products Inc. of Palo Alto, Calif., can be reached at (415) 855-0940 or (800) 249-6476; fax (415) 855-9004; http://www.miro.com/. □



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UltraSCSI Disk Arrays For Data Intensive Applications

ProMax is now shipping Adaptec's PowerDomain 2940UW™, an *Ultra*SCSI capable PCI host adapter, with a series of hard disk drives and disk arrays fully tested for Power Macintosh PCI computers.

This new *Ultra*SCSI host adapter can double I/O data rates when combined with *Ultra*SCSI drives. And is backwardly compatible with existing SCSI-2 disk drives. *Ultra*SCSI connects using standard data cables making installation simple. You can avoid obsolescence by specifying Adaptec PowerDomain host adapters that are compatible with Fast/Wide SCSI-2 and *Ultra*SCSI hard disk drives.

At the core of this host adapter is the powerful Adaptec-designed PhaseEngine RISC processor. This processor minimizes time it takes to process SCSI commands allowing the CPU to perform other tasks improving overall performance. The PCI bus offers data rates to 133 MB/sec making these RISC based host adapters essential for top performance.

A striped RAID-0 disk arrays using a PowerDomain host adapter and *Ultra*SCSI drives can achieve data rates as high as 40 MB/sec. *Ultra*SCSI is destined to be the choice storage technology for data intensive applications such as digital video and pre-press.

Adaptec's management made a strong commitment to support the Macintosh by acquiring Trillium Research, a seasoned Macintosh developer group and publisher of industry noted Remus utility software.

Adaptec and ProMax are prepared to offer support "The Macintosh Way". With a single call to ProMax users can obtain support for PowerDomain host adapters, Remus array software, and a family of high performance *Ultra*SCSI PCI storage systems from 2 to 96 GB. Remus is noted for use in creating high performance RAID-0, -1, -4, and -5 disk arrays.

PowerDomain host adapters are easy to install and to configure. There is no need to open your Power Macintosh computer to install jumpers or to add terminators. Adaptec cards self configure and they include programmable active termination allowing data transfers with multiple drives to 40 MB/sec.

*Ultra*SCSI is here – call ProMax at 1-800-977-6629 today for more information and name of a Reseller. ProMax systems are on the approved list of Media 100 and Targa2000. The suggested retail price of a PowerDomain 2940UW host adapter is $345 and Remus Lite is $295. ProMax disk arrays range from $1195 to $44,765 with capacities from 2 to 96 GB.

For Additional Information Visit ProMax Web Page: http://www.scsidisk.com

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STiP

From Page 10

When users connect to a Web server with a STiP file, the CGI will convert the STiP file's opening screen into a GIF with an image map and serve this to the user. When users click on a button within the file, they will enter an interactive session with the CGI that will return the appropriate screen. All branching will be determined by the CGI.

Version 2.2 will support text and graphics in the CGI file. A later revision will add support for QuickTime, audio and Java applets, the company said.

STiP Professional is a multimedia authoring environment developed by Grant Software Solutions of Groningen, Netherlands (see 10.30.95, Page 12). While the software lists for $1,295, MacVONK said it will be available for $995 for the next 60 days.

In related news, the company said it is also working on STiP Light, a limited version of its multimedia authoring environment for the education market. It will lack the scripting language found in STiP, and it will not offer the CGI save option, MacVONK said. Pricing has not been set.

MacVONK Canada Inc. of Calgary, Alberta, can be reached at (403) 232-6545; fax (403) 232-6425; mvc@eworld.com; http://www.ccinet.ab.ca/macvonk. □

Hash

From Page 10

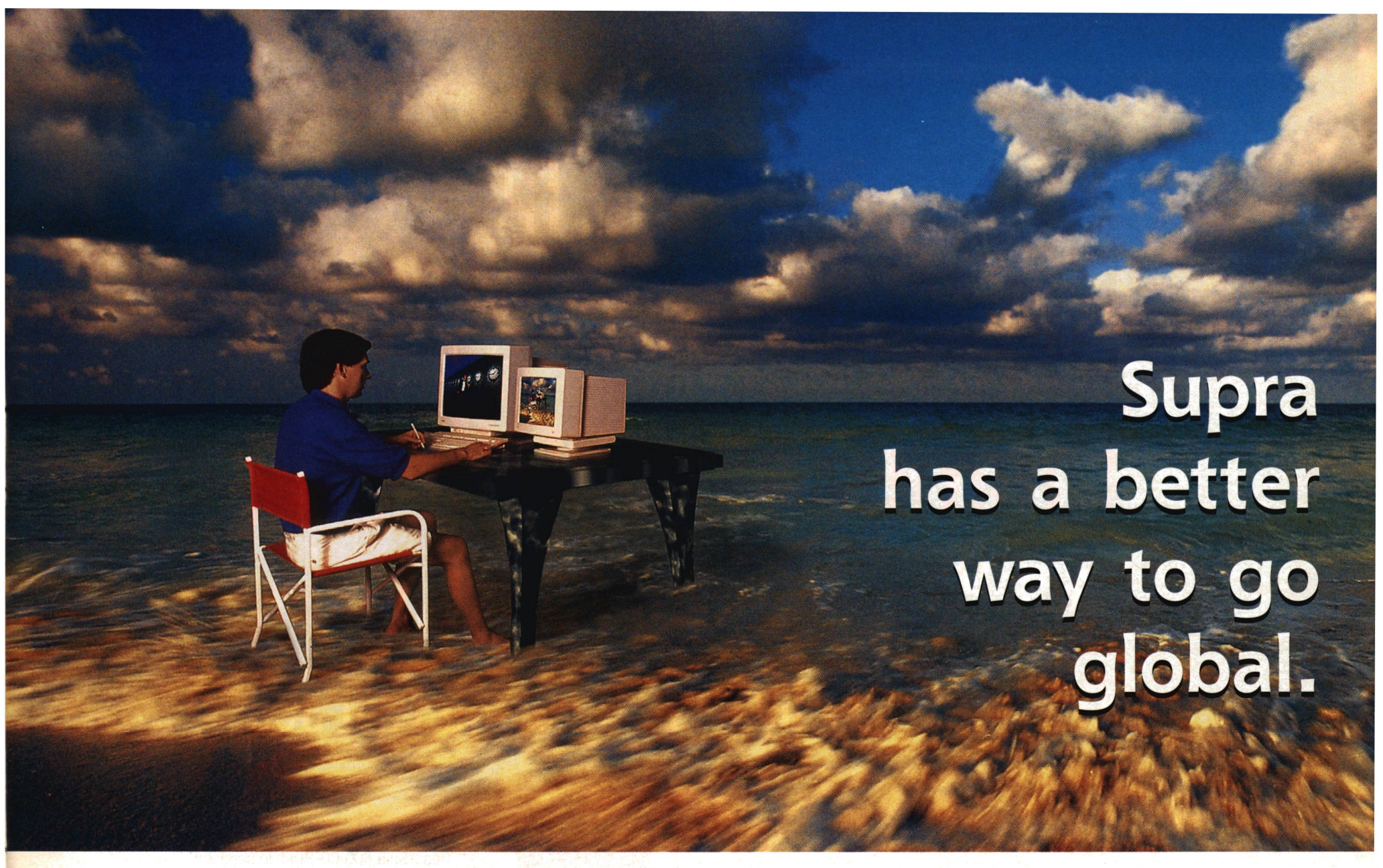
Travis Banks, a free-lance animator from Discovery Bay, Calif., uses both the Mac and Windows 95 versions of Animation: Master 3.0; he is currently beta testing the Windows version of 4.0. Banks' most recent project involved animating characters for an upcoming network TV show.

"For character animation, there's nothing this side of [Silicon Graphics Inc.] that does it this fast or as well," Banks said. "Its controls have the artist in mind; I can model each individual spline and put it where I want."

Mac users have criticized Animation: Master's un-Mac-like interface, but Banks said he feels that's not a serious issue. "If a program has good features, I use it," he said. "I like [MetaTools Inc.'s KPT] Bryce, and that interface isn't even computerlike."

Users of Version 2.0 will be able to upgrade for $200.

Hash Inc. of Vancouver, Wash., can be reached at (360) 750-0042; fax (360) 750-0451; http://www.teleport.com/~hashinc. □



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28,800 bps(V.34) max data speed	■	■	■
115,200 bps max throughput	■	■	■
Up to 14,400 bps fax capability	■	■	■
Voice/fax line sharing	■		■
Data comm software	Microphone LT	Microphone LT	Shareware
Serial port enhancer software	■	■	■
CompuServe® Information Manager	■	■	■
Caller ID	■		
5-Year limited warranty	■	■	■
Durable aluminum case	■		
Flash ROM	■		■
Alpha-numeric display	■		
Fax software	FAXcilitate	FAXcilitate Lite	GlobalFax
One-step access to FAX menu	■	■	
Apple Script support	■	■	
Estimated Retail Price	**$229**	**$169**	***$209**

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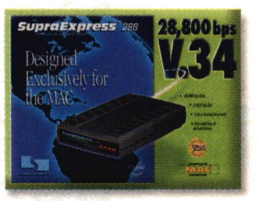

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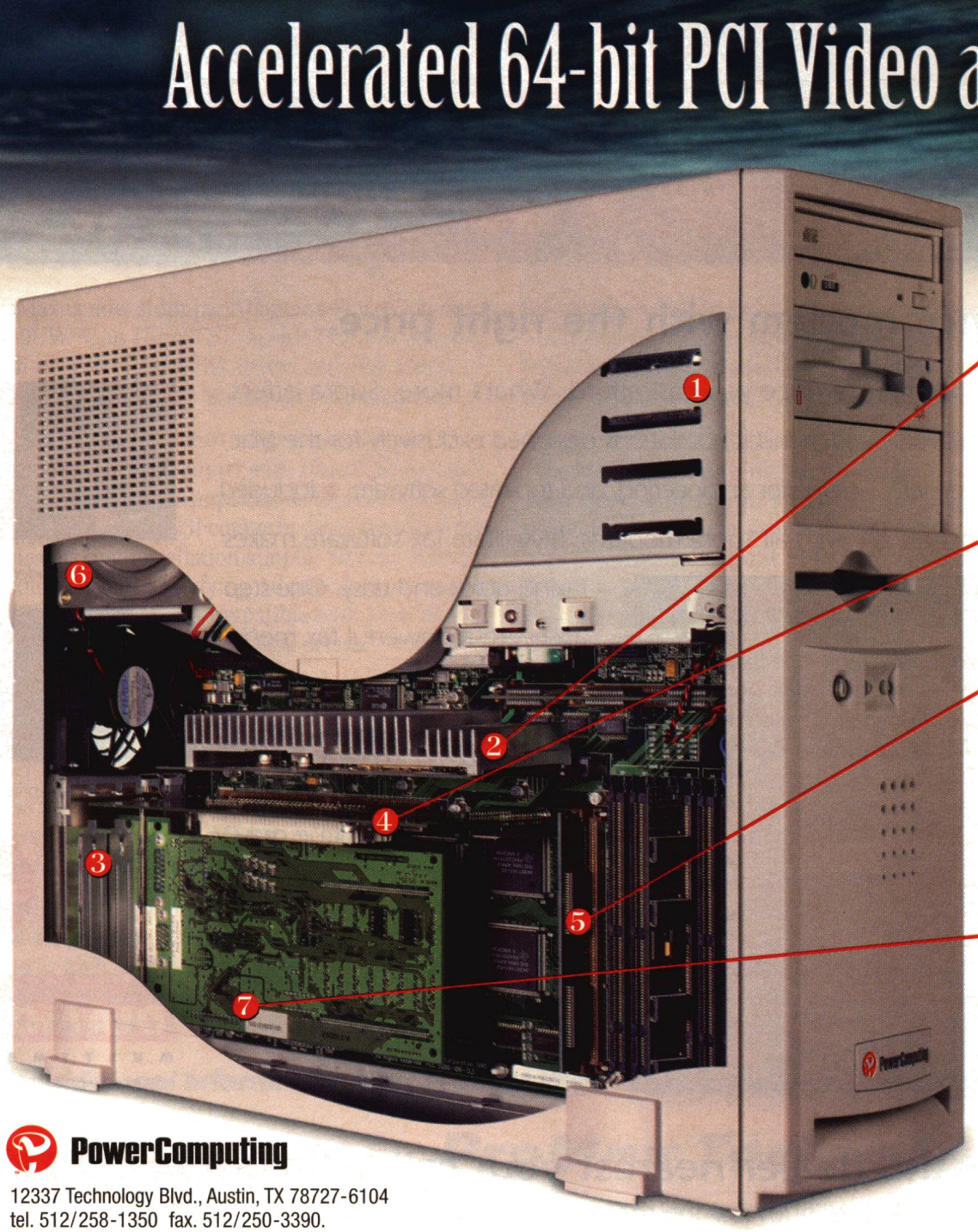

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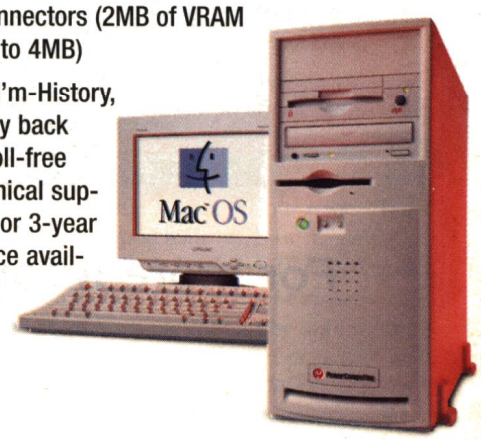

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New York Times, November 7, 1995

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Sonic Systems' QuickStream/3 provides PPP and AppleTalk connectivity. See Reviews, Page 25.

Asanté utility to boost Open Transport tasks

Company ships Ethernet devices

By Clifford Colby

Asanté Technologies Inc. is off to a fast start this year, debuting several new Ethernet products, including a software utility that the company claims will significantly increase the performance of Open Transport-based networks.

According to Asanté, NetDoubler will direct the flow of data over protocol stacks and get around other bottlenecks through a caching scheme. The utility, which is due to ship in February, will work with Personal File Sharing- and AppleShare-based servers over both 10- and 100-Mbps networks.

In preliminary tests, Asanté said, NetDoubler reduced the transfer time for a 20-Mbyte file from one minute to eight seconds.

NetDoubler will be available for PCI and NuBus Macs and will require Open Transport 1.0.8 or higher. Asanté said it plans to bundle NetDoubler with its 10/100BASE T PCI cards and will offer it separately for $99 per machine; the utility must be installed on both source and destination systems. Asanté said its software is compatible with other companies' Ethernet cards.

On the hardware front, Asanté released this month the Asanté-Hub 1016-IQ. The $899 intelligent hub comes with 16 10BASE T ports, one thin-net port and one AUI (attachment unit interface) port. The hub has built-in support for SNMP (Simple Network Management Protocol). The company also shipped its MacCon CS card for the Mac communications slot. The card is available in 10BASE T and thin-net flavors for $89 and $99, respectively.

For Apple's latest PowerBooks, Asanté is now offering its FriendlyNet PC Card. The Type II card is available in two versions: One has a 10BASE T connector for $189 while the other supports both 10BASE T and thin-net connections for $229. Asanté also recently shipped a $399 dual-speed 10/100BASE T NuBus card. A pack of five costs $1,750, and a 20-pack goes for $5,999.

Asanté Technologies Inc. of San Jose, Calif., can be reached at (408) 435-8388 or (800) 662-9686; fax (408) 432-7511; sales@asante.com. □

Spider Island's TeleFinder 5.0 doubles as a BBS and Web server, giving users access to Internet mail and their own Web sites.

TeleFinder 5.0 server puts BBSes up on Web

By James Staten

Bulletin-board sysops who have eyed their Internet-enabled brethren with envy can now bring their services to the Web with Spider Island Software's TeleFinder.

TeleFinder 5.0, due this week, doubles as a BBS and a Web server. The new version supports HTTP (Hypertext Transport Protocol) and is compatible with all standard CGIs (Common Gateway Interfaces) and asynchronous CGIs. The server also supports Apple's Thread Manager and Open Transport, plus intelligent buffering and asynchronous I/O.

TeleFinder 5.0 can host personal Web sites, and each site can have its own separate directory. Administrators will be able to set user privi-

See TeleFinder, Page 18

VocalTech to get people talking on Internet Phone

By James Staten

Even though the phone companies continue to wage their long-distance wars, talking over the Internet may yet prove to be the most affordable communications option of all.

At least that's what VocalTech Inc. said when the company debuted Internet Phone earlier this month. Priced at $99 and expected to ship by March, Internet Phone allows users to have telephone conversations over a TCP/IP connection. The product supports full- and half-duplex conversations (the latter of which requires users to take turns speaking).

An address book can store users' Internet Protocol addresses, which Internet Phone will display for point-and-click calling and answering. The program can also be a helper application for most Web browsers.

Supporting MacTCP 2.0.6 and Open Transport, Internet Phone works over a LAN-based or dial-up connection to the Internet at speeds of 14.4 Kbps or faster.

VocalTech Inc. of Northvale, N.J., is at (201) 768-9400; fax (201) 768-8893; info@vocaltech.com; http://www.vocaltech.com. □

Animated characters representing both sides of a call are key parts of Internet Phone's interface.

Supra delivers FAXcilitate 2.0

Update supports QuickDraw GX

By Joanna Pearlstein

Supra Corp. has released Version 2.0 of FAXcilitate, the company's fax software.

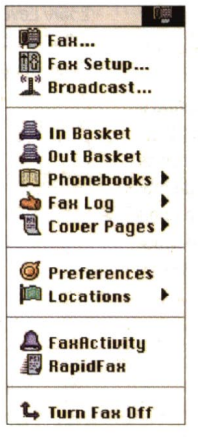
Last updated two years ago, FAXcilitate 2.0 adds support for QuickDraw GX, AppleScript and Open Transport. The new version, which is a native Power Mac application, also handles gray-scale faxes, multilingual cover pages and multiple location settings.

The FAXcilitate update allows users to drag fax numbers from a phone directory onto a fax. Version 2.0 can also select areas of incoming faxes and copy them into other documents. Users looking to send faxes from multiple applications can use 2.0's enclosure function to attach multiple documents to a single cover sheet. The documents can then be faxed as a contiguous document.

Supra said an update to FAXcilitate 2.0, expected in February, would add support for editing fax cover sheets.

In other news, Supra announced price reductions on its 28.8-Kbps fax modems. The estimated selling price for the SupraFAXModem 288 is $229.95, down from $249.95; the SupraExpress 288 dropped to $169.95, down from $199.95, the company said.

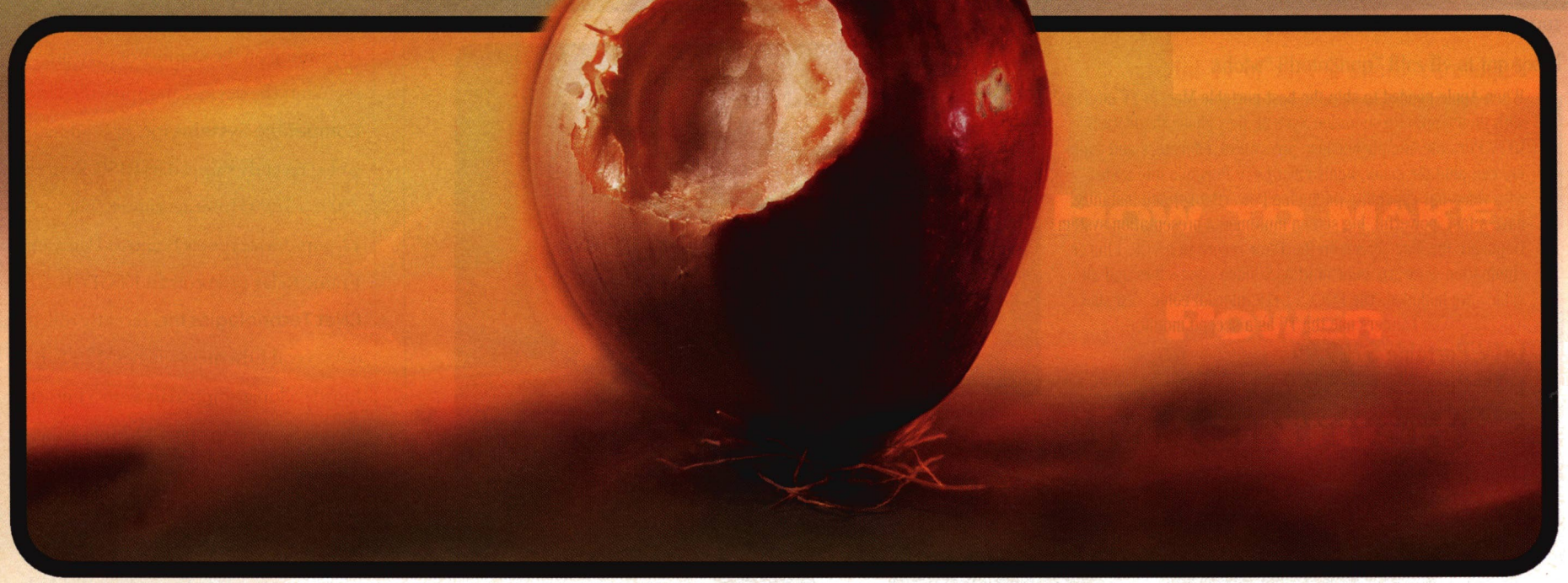
Supra is also shipping Supra Simple Internet, a $179 bundle that includes a 28.8-Kbps fax modem, a Web browser, a CD-ROM tutorial and Internet connectivity software.



Faxing at your fingertips: FAXcilitate 2.0 adds a fax menu to the System 7.x menu bar so users can fax from within any application.

Supra Corp. of Vancouver, Wash., is at (360) 604-1400 or (800) 727-8772; fax (360) 604-1401; http://www.supra.com/. □

Oddly, most PC cards built for two functions are only good at one.



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TeleFinder

From Page 16

leges and control the size of Web sites.

The update will include a Post Office Protocol 3 (POP 3) mail server that supports MIME (Multipurpose Internet Mail Extensions) enclosures. With POP 3, BBS members will be able to retrieve mail through the TeleFinder client or any Internet mail application. TeleFinder will also come with the Finger function for e-mail-address verification.

Other new features include AppleScript and Apple-events support, a scheduled execution tool to launch utility and maintenance programs at set intervals, the ability to import Usenet news groups, and two-way forwarding of SMTP (Simple Mail Transfer Protocol) mail.

"Pretty much everything I've thrown at it it's handled great," said beta tester Steve Creel, director of new media at Communication Arts Inc. of Birmingham, Ala. Creel currently runs three BBSes that he said he plans to upgrade to TeleFinder 5.0.

TeleFinder 5.0 costs $675 for an unlimited user license; clients are available for Mac and Windows. Upgrades will be free for Version 4.0 owners or $95 for Version 3.0 owners.

Spider Island Software of Irvine, Calif., can be reached at (714) 453-8095; fax (714) 453-8044; info@spiderisland.com; http://www.spiderisland.com. □

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L•TV Portable $229.99
L•TV Portable Pro $299.99
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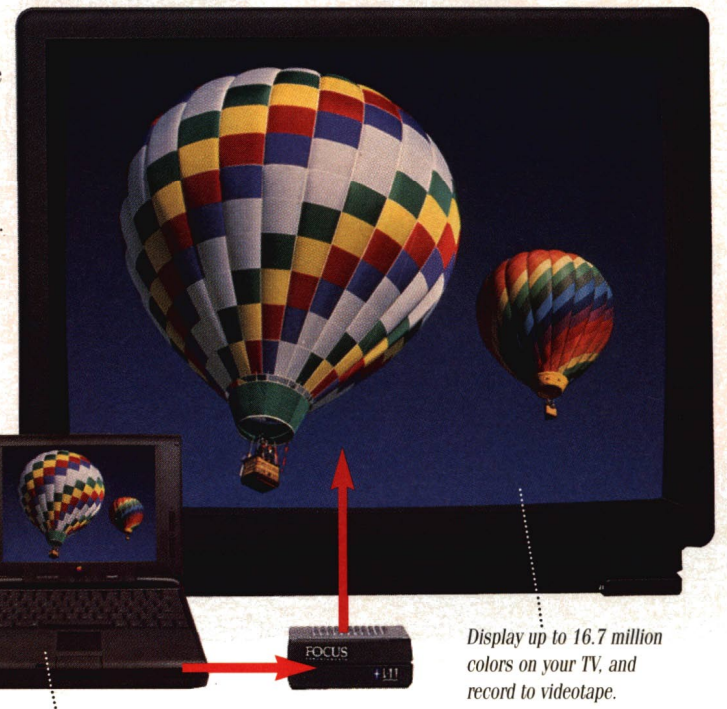

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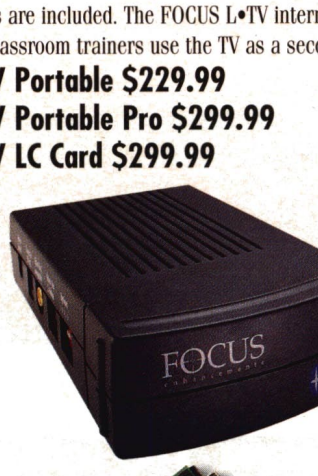

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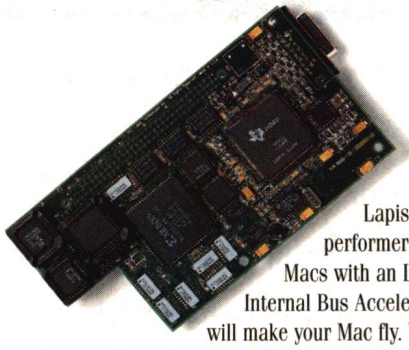

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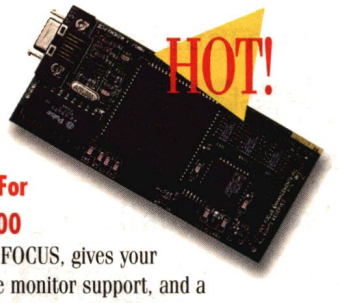

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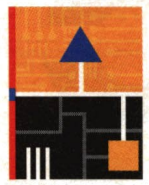
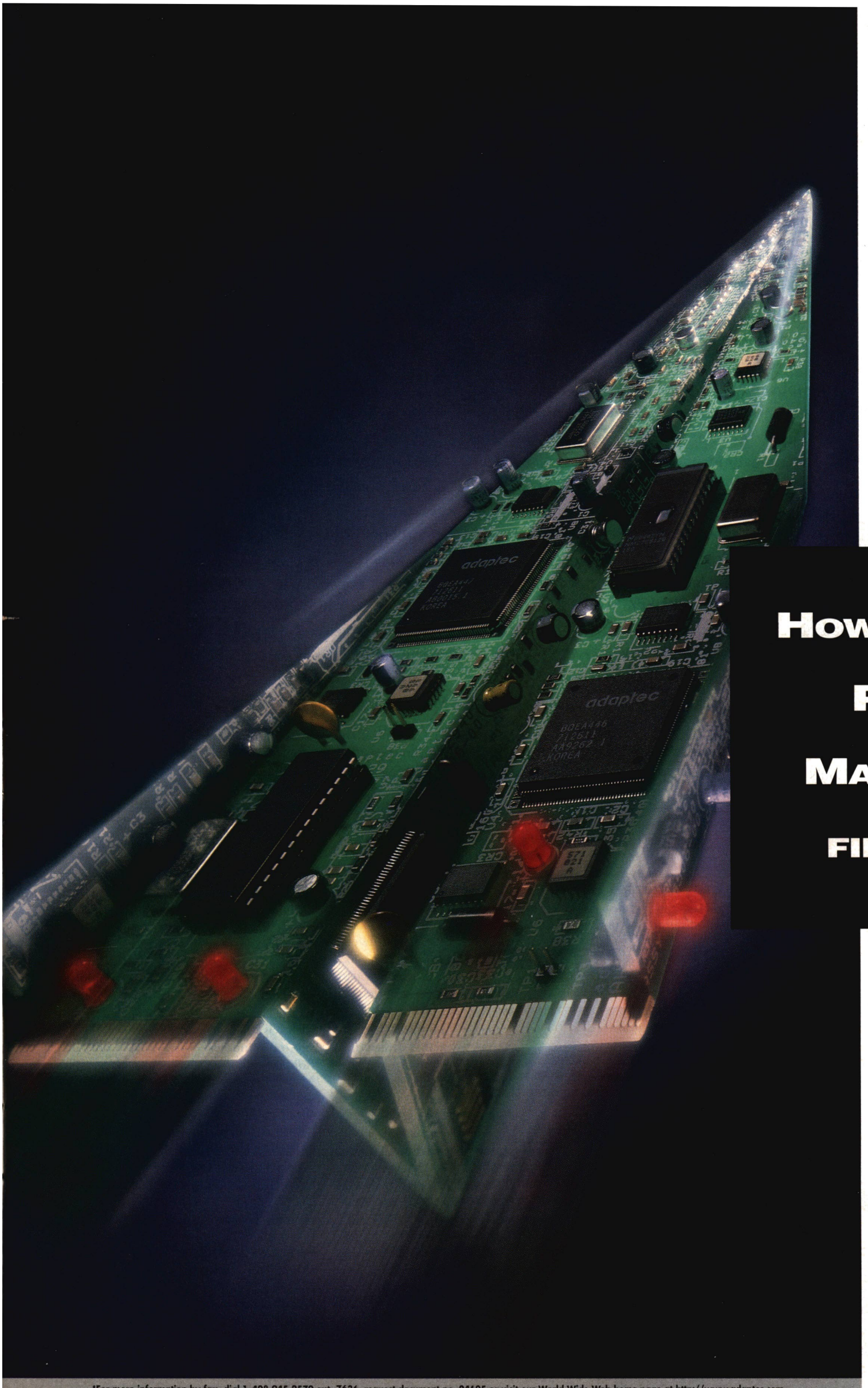
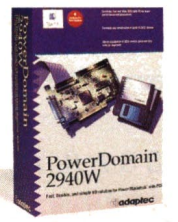


- **Alantec readies PowerHubs**
- **CNet ships Ethernet switches**

Alantec Corp. said it plans to ship this quarter its PowerHub 4100 series switches. According to the San Jose, Calif.-based company, all of the devices will connect 10- and 100-Mbps Ethernet segments and will route AppleTalk, TCP/IP and IPX. Prices on the 4100 series will range from $10,950 to $12,450, depending on the number of network segments the device can support. ... **Compatible Systems Inc.** of Boulder, Colo., recently shipped its RISC Router 2900i, a $2,995 Internet router. The 12-port device routes Point-to-Point and Frame Relay protocols and TCP/IP. ... **CNet Technologies Inc.** recently rolled out several Ethernet switches. The San Jose developer shipped its $2,995 PowerSwitch 80, an eight-port 10-Mbps Ethernet switch, and its $899 PowerSwitch SH-40 switch, a four-port device with two ports for 10BASE T connections and two ports that can be configured for 10BASE T or thin-net links. ... **Focus Enhancements Inc.** of Woburn, Mass., is now offering two Ethernet hubs: a $419 device with 16 10BASE T ports and a $700 hub with 32 10BASE T ports. Each device includes one thin-net link and one AUI (attachment unit interface). ... Several companies finished 1995 by shipping Ethernet devices. **Standard Microsystems Corp.** of Hauppauge, N.Y., said its $1,595 eight-port 100BASE T repeater is now available. **Dayna Communications Inc.** of Salt Lake City announced the shipment of its 12-port 100BASE T hub, with a street price of $1,799, a Fast Ethernet PCI card for $225 and its Fast Ethernet NuBus card for $325. And **Kingston Technology Corp.** of Fountain Valley, Calif., is now offering a $59 Apple AUI Ethernet transceiver for making 10BASE T and thin-net connections. □





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BPA INTERNATIONAL

Where's Mike?

In the past year, we've seen three separate marketing strategies from Apple, none of which have been given more than a few months to germinate. We've watched a constant stream of executives shuffle out the door. We've seen product strategy failures because of hardware-design problems, software snags or inept forecasting.

Given this, it doesn't take a rocket scientist to see that Apple has a leadership problem. Even the most optimistic of Mac advocates can agree on this unassailable fact. And the biggest part of that problem is the silence at the top of the Apple food chain.

We're not referring solely to Apple CEO Michael Spindler. We think that the man he reports to, Chairman A.C. Mike Markkula Jr., deserves much of the blame for Apple's indecisiveness over the past year, and we think it's time he gave us some answers.

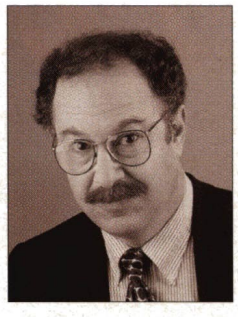
Look at some of the other board chairmen in the industry and study the role they play at their companies: Louis Gerstner Jr. at IBM Corp., Scott McNealy at Sun Microsystems Inc. and Eckhard Pfeiffer at Compaq Computer Corp. These are all companies with profiles and problems as great as Apple, and, if you read the papers regularly, chances are that you know where they stand on the issues that face their companies.

In contrast, Markkula has been the great stone face on Apple's board. Where has he been on such issues as licensing, product forecasting and Apple's quixotic quest for market share? All we've heard is minuscule sound bites of his support for Spindler. We're left to infer that his silence stands for acquiescence of the company's policies, which is unfair to Apple's shareholders and to the Mac community.

We've criticized Apple in the past for not having a charismatic leader at the top; one who can effectively communicate within and outside the organization. What Apple needs now is executive activism, not absenteeism. It's time for the chairman and the CEO of Apple to step out and fight for their company or step aside and let someone else do it. □

THE SECOND DECADE HENRY NORR

Hoping for a touch of cross-platform magic



Whatever new strategy, structure and product mix emerge from the current crisis in Cupertino, Calif., I'm hoping Apple's new plans will include increased emphasis on cross-platform compatibility — products that let users run Windows software on the Mac. And I have my fingers crossed that Apple's managers will come up with a solution for a little-noted but potentially lethal threat to its goals in this area.

Branding is everything

The company has been proclaiming its commitment to deliver cross-platform hardware solutions for the Mac for almost two years, ever since Houdini — its original, experimental DOS Compatibility Card — provided irrefutable proof of the concept's appeal. Unfortunately, progress has been agonizingly slow: Currently Apple offers DOS Compatible configurations only on its aging Power Mac 6100 and Performa 630/640 series.

Other solutions are, of course, available from third parties: Reply Corp., Orange Micro Inc. and Insignia Solutions Inc. Technically, one or another of their products fills the bill for most users.

But in terms of market psychology — "removing compatibility as a barrier to moving to the Macintosh platform," as Apple puts it — after-market add-ons have only a limited effect. To truly remove the barrier, what's needed are Apple-branded, Apple-marketed and Apple-supported (though not necessarily Apple-engineered) solutions, fully integrated with the Mac OS and available as a standard configuration option.

Fly in the ointment

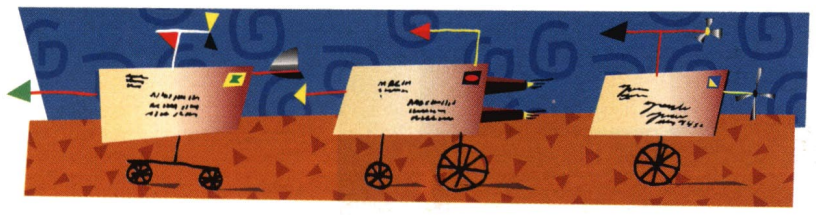
The good news from this point of view is that Apple is nearly ready — at last — to deliver PCI cards with Intel Pentium or Cyrix 586 processors. The bad news is that it can't ship these cards with Windows 95, Windows 3.1 or even MS-DOS: Its old OEM licensing agreement with Microsoft Corp. has expired, and it's refusing to accept the new terms Gates et al. are offering, which require signatories to promise not to sue Microsoft for patent infringement.

If this meant only that buyers of dual-platform Macs had to purchase Windows separately and install it themselves, it would be a significant annoyance. But the reality is much worse: The full retail version of Windows 95 is available only on floppies, and the disks are in a special 1.7-Mbyte format — "distribution media format" — that Mac SuperDrives can't read!

On the face of it, that would seem to mean that anyone buying a dual-platform Mac and wishing to run Windows 95 would need to buy and install a full version of MS-DOS, then Windows 3.11, then a Windows 95 upgrade kit. At retail prices, that adds up to almost $300 worth of software and more hours for installation than I care to count.

Apple officials say they are working on alternatives that would at least alleviate the pain. Let's hope they succeed. Otherwise, what should be a landmark in Apple's efforts to "stand out and fit in" could turn into a first-rate fiasco. □

Henry Norr, editor emeritus of MacWEEK, welcomes feedback in the MacWEEK forums on CompuServe or eWorld or at henry_norr@macweek.com.



LETTERS

Educating Apple

I certainly hope Apple will make sure not to leave the K-12 education market high and dry. We rely on low-end machines. In fact, we've invested many thousands of dollars in low-end Apple computers over the past few years. You might say I've staked my career on Apple's remaining viable. I've done so because I think the Mac is great.

I would certainly be willing to try out Mac clones (in fact I would welcome a chance to try them) if Apple wants them to take over the low end. I just hope the Mac doesn't leave the low-end market altogether.

Robert Moore, head of computing
The Agnes Irwin School, Rosemont, Pa.

Tale of two companies

I'd like to draw a comparison between two companies. Last year I bought a Connectix QuickCam and a Visioneer PaperPort. The QuickCam is a joy to use: Just plug it into the serial port — it doesn't even need a power cable. Likewise, the PaperPort is a joy to use — just insert a sheet of paper and it starts scanning automatically.

I was really happy to see these two companies supporting the Mac with neat new products. My PC-owning friends were jealous. Unfortunately, the PaperPort software was not Power Mac-native and ran very slowly on my Power Mac 6100. The magazine advertisements said the PaperPort would scan a page in 6 seconds. It may scan it in 6 seconds, but on my Power Mac 6100 the time between inserting the sheet and actually being able to do anything with it in the PaperPort application was 45 seconds. Once in the PaperPort application, the performance was sluggish.

Still, it was a great product. It just needed faster software. I called Visioneer and asked if they were going to produce a Power Mac-native version. They said yes, so I kept the PaperPort and waited for the software update. And waited. And waited.

After a year, Visioneer finally finished the native version of the PaperPort application. But wait! It's not a free update. It costs $70, plus $13 for tax and shipping.

I got the entire QuickCam, including the software and the manual, for not much more than that, and throughout the last year Connectix has regularly posted free software updates on its Web site. The latest update includes major new features, such as automatic brightness control, and it's still free to QuickCam owners.

I'm used to the fact that computer hardware always gets cheaper. If I'd waited until this year I could have gotten the new PaperPort VX for less than I paid for the previous version. That's life. What hurts is that Visioneer now expects me to pay an extra $83 for software that I expected to get when I bought it a year ago. When I complained to a Visioneer salesman at this year's Macworld Expo, he told me that the PaperPort box was clearly marked "not native." When I got home, I took a look at the box. He was lying.

So the lesson in this is that if you are thinking about buying a Connectix product, buy it now. RAM Doubler, Speed Doubler, QuickCam, whatever it is, you can buy it with the confidence that Connectix doesn't penalize its early adopters.

On the other hand, if you are thinking about buying a Visioneer product, put off the decision as long as possible because the moment you part with your cash Visioneer sees you as a revenue stream, even before the one-year warranty expires.

Stuart Cheshire, Macintosh programmer
Stanford, Calif.

Staying in 'toon

In the midst of scrambling to identify which Macs we should invest in and which ones to avoid, seeking the lowdown on emerging technology before our users ask for it and pondering the latest reorganization at Apple, there is one consistent bright spot each week in MacWEEK — the Eli cartoon.

Sure, I read MacWEEK for the cutting-edge news and commentary, but Eli's slightly twisted humor and fresh, almost naive style makes me think about why I use a Macintosh in the first place. I've shown Eli 'toons to Wintel types, and they can't see the humor (kudos for sure). Virtually everyone in our office has at least one Eli posted at their workstation.

Thanks for brightening our week.

Sven Brindley
Manager, development group
Norsk Technical Systems Ltd.
Sechelt, British Columbia

Ups and downs

I was just looking over the 01.15.96 issue of MacWEEK and was puzzled by the caption on the photo in the lower right corner of the cover. Was this a comment on the attitude of those attending the expo? Or just on how fast they were moving up those stairs?

Wes Rand, graphics editor
Norwich Bulletin, Norwich, Conn.

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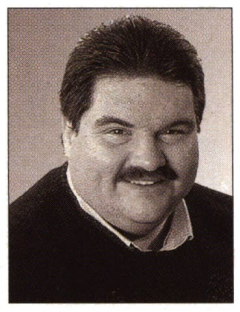
THE MAC MANAGER DON CRABB

Focus on the Macintosh and give Apple a rest

OH MY GOD, THE WORLD IS COMING TO AN END!

Enough with the hysterics, people. So what if Apple stops selling bottom-feeder Macs? So what if Michael Spindler leaves as CEO and who knows who is in? So what if Apple is getting bids from everyone under the sun to buy it out? In short, so what to whatever happens to Apple.

We've got some planning to do — strategic planning — and today's lesson is simple: From whom and when do we buy our Mac OS machines during the coming year?



100 percent Mac

If you're buying right this minute, your choices are simple: Buy any Mac from anyone and you're getting a 100 percent Mac as defined by Apple. No matter if it wears a Power Computing Corp., Radius Inc., UMAX Technologies Inc. or DayStar Digital Inc. badge. It's pure Mac, 100 percent certified by Apple.

But if you're not buying right now, you've got some thinking to do. Do you wait until the PowerPC Platform (PPCP, formerly PowerPC Reference Platform) hits the streets midyear? And if you do wait, what can you expect? Or do you wait even longer to see if Apple's licensing strategy works over time?

These are nontrivial questions, questions whose answers will either make you a success or its opposite in your job.

Asked and answered

Now, let's get to the answers.

▶ Apple's not going out of business, so stop fretting. It may be bought, sold or merged, but it'll keep selling every Mac it makes. And sometime in 1996 it will start focusing on the ones it makes best: the middle and high end. Look for real performance upgrades to the 7500, 8500 and 9500 that swap out more than just the CPU. Also look for multiple versions of the Shiner server. And look for Apple to quit the 68040 and low-end PowerPC markets. It'll finally get us a competitively priced high-performance multimedia notebook by Macworld Expo in August.

▶ Power Computing will be doing more business than it can handle, so expect customer service slip-ups. Expect Power to ship fast but inexpensive machines at the PPC 601, 120-MHz level; it will ratchet up its PPC 604 PowerWaves to 250 MHz and higher by year-end, and it'll also have a line of notebooks that will put serious pressure on Toshiba Corp. and Dell Computer Corp. Power will let the market drive its mix of 100 percent Mac and PPCP machines.

▶ With UMAX selling clones under the SuperMac name, expect it to offer models in the same price/performance range as Apple (giving you a second source for Apple-spec machines).

▶ More cloners will sign on this year after PPCP ships. Look for biggies like Compaq Computer Corp., Dell, Gateway 2000 Inc. and Toshiba to join the Mac OS party, with more joining later. No kidding.

Finally, this means that you can concentrate on your specific software and networking requirements. Mac managers will enjoy the same level of supplier independence that the Intel-standard PC manager has known for years — the heartaches, too, but that's another column. □

Don Crabb welcomes comments at his Internet address decc@cs.uchicago.edu. You can also check out his home page at http://cs-www.uchicago.edu/~decc/.

"Oh come on, you could own one T-shirt without a product name on it."

Comments? Ideas? Contact Eli at elitoons@aol.com

When it comes to rating multimedia monitors,

AppleVision® 1710AV

$1159*

MacUser *magazine recently put some of the leading multimedia monitors through their paces. They performed lab tests on image and sound quality. They stared at test documents, line art and scanned images. They played their favorite CD's at various levels. They fiddled with knobs and on-screen controls. And they researched street prices and warranties.*

After all the results were in, the ViewSonic 17GA 17" (16.0" viewable) PerfectSound™ multimedia monitor was singled out as the "Best Buy."

No wonder. An entirely new technology creates the ultimate screen image – maximum resolution of 1,280 x 1,024, refresh rates as high as 160Hz, and razor sharp screen definition.

And listen to this. High fidelity speakers are integrated into the monitor bezel so the full, rich stereo sound envelopes you. To quote a satisfied customer, "It rocks, man!"

MacUser RATED DECEMBER 1995

And the 17GA is so attractively priced, it's like getting the multimedia feature for free. Several competitive models cost as much but are not even multimedia monitors.

Rather than toot our own horn, perhaps we should refer you to MacUser *magazine:*

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mice are nice but checks are better.

ViewSonic® 17GA
$850*

"A real multimedia bargain," they said, "the ViewSonic 17GA offers solid image quality, warm colors, fine-sounding audio and a slew of easy-to-use on-screen controls." So when you're ready to buy, remember this: Many 17" (various viewable) multimedia monitors come with mice, but only the ViewSonic 17GA has been selected as MacUser *magazine's "Best Buy."*

+/OUTSTANDING •/ACCEPTABLE −/POOR

RATING	PRODUCT	PRICE	SUPPORT	IMAGE QUALITY	SOUND QUALITY
★★★★	**ViewSonic 17GA**	•	•	+	•
	A real multimedia bargain, the ViewSonic 17GA (estimated street price, $850) offers solid image quality, warm colors, fine-sounding audio, and a slew of easy-to-use on-sreen controls—all at a competitive price. The stylish case will also make you the envy of your office mates.				
★★★★	Apple Apple Vision 1710AV	−	•	+	+
★★★½	IBM 17S/S	−	•	•	+
★★★½	Nokia 447W	•	•	+	−
★★★½	Panasonic Pana Media 17	•	+	•	•
★★★	Philips 17B	•	•	•	−
★★½	Philips Brilliance 15A	•	•	•	−

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* Estimated street price per "MACUSER" magazine, December 1995.

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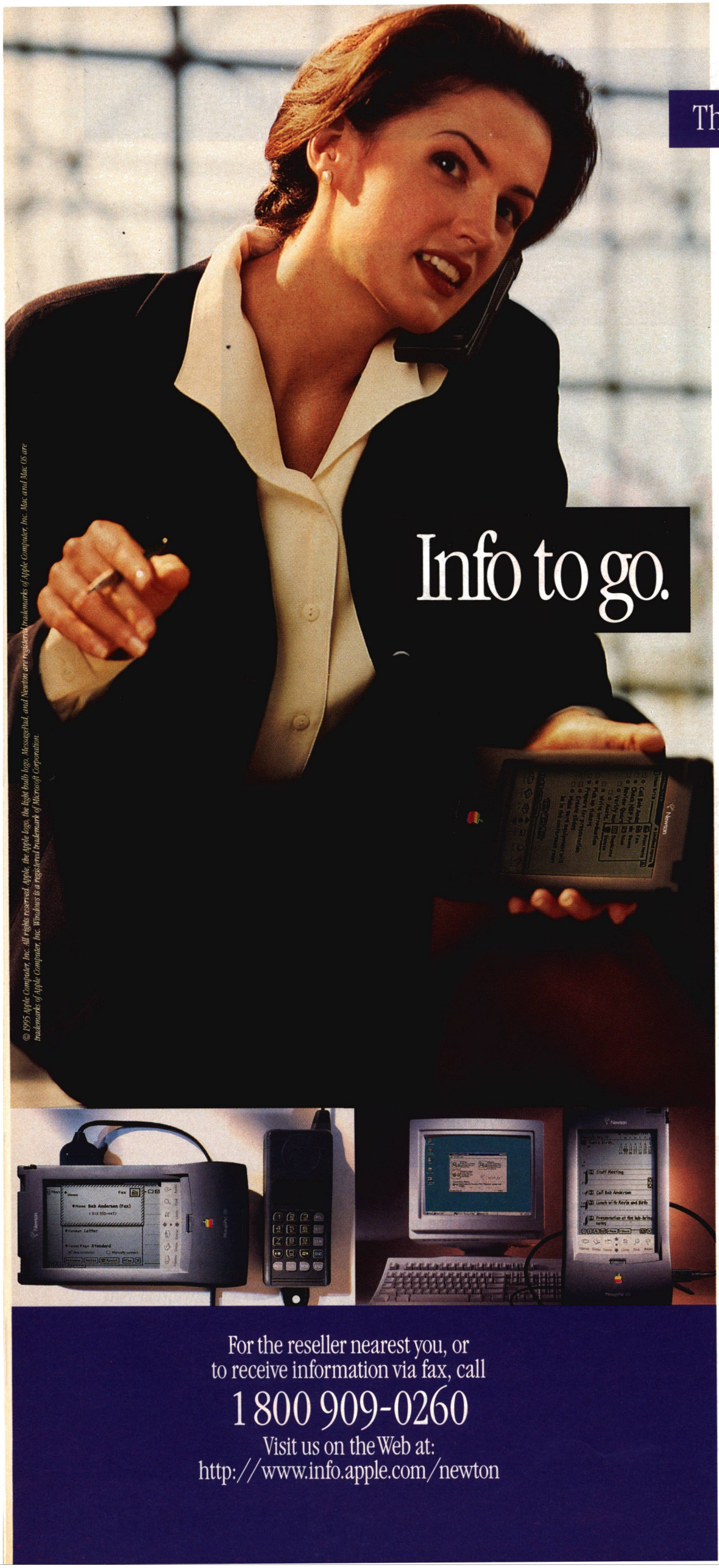

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BEST OF BYTE COMDEX Fall '95

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The New Apple MessagePad 120

Newton

DATA TO GO

FileMaker Pro 3.0 Companion for Newton 2.0 will let you work with FileMaker databases on the MessagePad 120.

FileMaker Pro 3.0 can relate to users and developers

By Jonathan A. Oski

Claris' database makes smooth move from flat-file to relational foundation.

With FileMaker Pro 3.0, Claris Corp. has delivered the most significant upgrade yet to this venerable Macintosh database application, successfully transforming the program from a flat-file database model into a relational one.

While such a fundamental change could have been disastrous, we are pleased to report that Claris has met the challenge, adding a whole new dimension to the application without sacrificing any of its consummate ease of use. Current users, both novice and expert, will find the conversion to a relational model mostly painless. Developers will also be happy, as the $199 program's enhanced scripting capabilities greatly improve application-development possibilities, while native Power Mac speed finally makes FileMaker a more able performer.

Going relational

Until now, the only way you could integrate data from multiple files in FileMaker Pro was through look-ups, which merely copied data from one database to another. While useful, look-ups did nothing to eliminate data redundancy: Files were not actually linked, so if any data changed in one file, you'd have to manually update it in the other.

With Version 3, you can now display data from another file in any layout without having to copy the data from one file to another. Now the data in a file can change and the changes will be reflected in any other file with which you've defined relations.

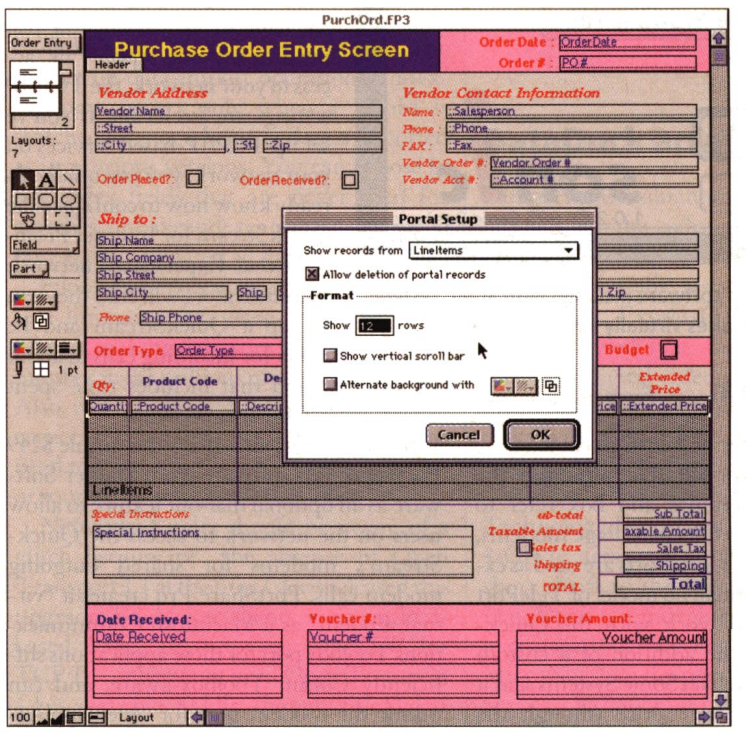
To work with related data, FileMaker Pro 3 introduces the concept of portals, areas on a layout where you can view, add or edit records from another file. A typical use of portals would be for invoicing, where you have a one-to-many relationship between the invoice and the items purchased. To do this in previous versions you had to use repeating fields, but portals offer a much more powerful way to view and edit one-to-many (or many-to-many) relationships. One shortcoming we hope Claris will fix soon is the inability to sort data in a portal; currently, you can display data only in the order in which it was created in the related file.

Converting repeated-row data from previous versions into relational files and portals is not well-documented but is easy once you get the hang of it. Switching from look-ups to related data is almost automatic. FileMaker creates the relationships for you; all you need to do is change your field definitions and edit your layouts.

For backward compatibility with previous releases Claris has preserved both the look-up and repeating fields, but Version 3's relational features are so much more powerful that you'll really want to learn how to use them. Fortunately, the new features have been so well-integrated that current FileMaker users will have no trouble adapting. New users, in turn, will be surprised at how easy Claris has made it to create relational database applications.

Although experienced relational database geeks will complain that FileMaker Pro 3 lacks many features, such as two-

See FileMaker, Page 27



Claris' FileMaker Pro 3.0 uses a new object called a portal to display multiple rows from a related database file in a layout. Portals can include as many rows as space allows. Unfortunately, you cannot specify a sort order for the rows displayed in a portal; they can be listed only in the order they were created.

score card

FileMaker Pro 3.0

Claris Corp.
List price: $199*
Overall value ◆◆◆◆

Claris' latest release of FileMaker Pro is a major overhaul that is sure to please everyone from entry-level novices to advanced database developers. Relational database capabilities, additional network-protocol support and enhanced scripting features highlight a long list of improvements, but perhaps the most remarkable achievement is that Claris has extended the reach of this application while maintaining, or even improving upon, its characteristic ease of use. Databases from previous versions can easily be upgraded, and the addition of relational file handling is a relatively painless task. Claris has chosen not to release an upgrade for the Windows 3.x platform, which may be a problem for cross-platform FileMaker Pro shops. The program is also now finally native on Power Macs, greatly improving performance.

Performance ◆◆◆◆
Features ◆◆◆◆◆
Ease of use ◆◆◆◆
Documentation/support ◆◆◆

**Upgrades from prior versions, $99.*

Key ◆◆◆◆◆ *Excellent* ◆◆◆◆ *Very good* ◆◆◆ *Good* ◆◆ *Fair* ◆ *Unsatisfactory*

QuickStream/3 lends PPP power to remote access

By Mark H. Anbinder

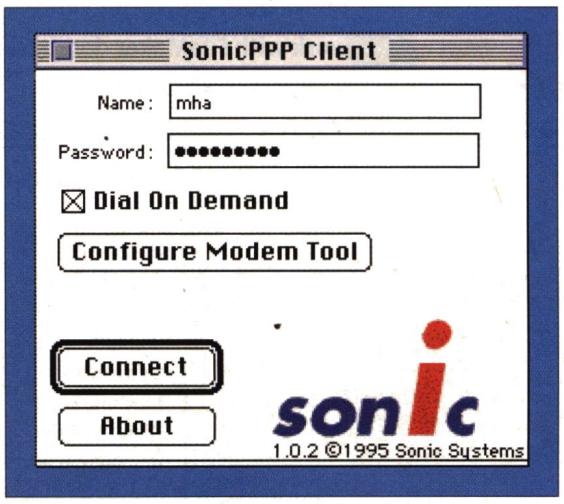
Sonic Systems remote-access server delivers competent AppleTalk, TCP/IP support.

With the explosion of Internet service providers, it's not surprising that the equipment needed to provide remote access to TCP/IP network services has become less expensive and easier to configure. Sonic Systems Inc.'s QuickStream/3 is a solid, well-packaged Point-to-Point Protocol server aimed at businesses that need to provide remote access to AppleTalk and TCP/IP network resources on their company LANs and beyond. The $999 three-port server comes with free client software and has also been enhanced with an optional dial-out feature from Stalker Software Inc.

The QuickStream/3 is about the size of a modem. Sonic Systems thoughtfully includes ports for both 10BASE T (twisted-pair) and 10BASE 2 (thin-net) Ethernet connections. Some similar products, such as Global Village Communication Inc.'s OneWorld servers, offer only 10BASE T ports.

The unit also has three DB-9 serial ports (like those found on the original Macintosh) to which modems may be attached for both incoming and outgoing modem calls. The QuickStream box contains three cables appropriate to connect these ports to standard modems with DB-25 ports, but modems with different connectors may

See QuickStream, next page



The SonicPPP client software included with Sonic Systems' QuickStream/3 requires virtually no configuration.

QuickStream

From previous page

require an adapter or a custom cable.

We were surprised that although the QuickStream literature and box refer to compatibility with Global Village modems, and that company's TelePorts are used as examples in the manual, no model of TelePort we know of will work with the QuickStream without the addition of a custom cable or adapter, which Sonic Systems said it cannot supply at any price (though the adapters are available from third-party vendors). Once you've got appropriate cables, however, it's easy to hook up the modems.

The process of installing the QuickStream administration software and the SonicPPP dial-in client software is disarmingly easy. Installation utilities have become so pervasive that it felt odd to drag the software from the distribution floppies onto the Mac's hard disk, but that's a minor complaint.

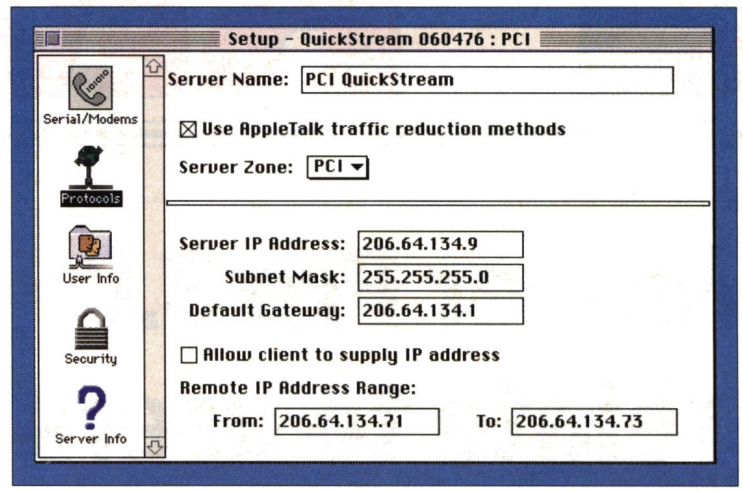
To configure the SonicPPP Client you just enter a valid user name and password in the utility's clean, uncluttered control panel window and specify the modem type and telephone number in the Apple Modem Tool (or other connection tool) dialog box. The included Apple Modem Tool 1.5.3 supports a number of popular modems, and it's easy to add support for any oddball modems you might happen to have. No connection scripting is involved; the SonicPPP Client already knows how to talk to the QuickStream server. (Users who prefer to connect with FreePPP or Point-to-Point Protocol, or PPP, client software for other platforms will need to do a little connection scripting.)

Setting up the QuickStream server is only slightly more complicated because dealing with TCP/IP requires some familiarity with its arcana. If you just need to provide AppleTalk access to your network, the TCP/IP settings are irrelevant. If you've set up TCP/IP-based services on your network, you essentially already know how to configure the QuickStream for Internet Protocol access. Experienced network administrators will find they can set up a QuickStream and be ready for incoming calls in about 10 minutes, and that includes time spent wrestling with the shrink-wrap.

Sonic Systems also offers the simple $249 PortShare Pro software from Stalker Software as an optional dial-out feature to allow users on the network to access the QuickStream's modems for shared outgoing modem calls. PortShare Pro creates a "virtual modem" as a Macintosh Communications Toolbox port for those applications sufficiently Comm Toolbox-aware, and can mimic the modem port for older applications that don't recognize Comm Toolbox ports. Strictly speaking, this is the "right" way to do things, but we'd like to see an option for the virtual port to mimic either the modem port or printer port even for Comm-Toolbox-aware software. Shiva Corp.'s NetModem and LanRover units offer all three possibilities to each user on the network.

Compatibility

DOS, Windows and Unix users won't be able to take advantage of QuickStream's AppleTalk support, and Mac users who want to access AppleTalk resources are limited to the company's SonicPPP client. (FreePPP and the other common PPP clients for the Mac don't support AppleTalk traffic.) Users familiar with Apple Remote Access (ARA) client software will find that SonicPPP is just as easy to use, and the QuickStream/3 and SonicPPP combination take full advantage of what your modems can do, while ARA plays to the lowest common denominator.



Configuring the QuickStream server involves a few well-organized panels of switches and other clearly marked settings. The administrator can make most of the decisions or leave them to the software.

SonicPPP client users may have AppleTalk or TCP/IP traffic, or both, routed through their PPP modem connection. AppleTalk allows only one network to be active at a time, so users who want to access AppleTalk devices remotely will not be able to access a local network at the same time. (This may affect those with a LocalTalk-connected printer or Newton MessagePad at home, for example.) Leaving AppleTalk routing inactive in SonicPPP avoids this problem but prevents accessing AppleTalk devices on the remote network.

Unfortunately, the SonicPPP Client does not support AppleTalk traffic under Open Transport on the latest Mac models. The company says this will soon be less of an issue, as an upcoming version of Open Transport is expected to include PPP client functionality. In the meantime, users can get TCP/IP connections working on these machines by disabling the several pieces of Open Transport and installing MacTCP.

Possibilities

It's actually quite possible to use a QuickStream/3 to start up an Internet-service-provider operation. By exporting the user list from a primary unit and importing it into secondary units, you could set up a few QuickStream/3 servers in sequence to provide dial-up service for quite a few people.

Certainly one or two QuickStreams will take care of the needs of a small or medium-sized business for its own staff or customers. For networks with more than one QuickStream it would be nice to have the Manager software automatically replicate the user lists and other settings among the servers.

As long as the QuickStream is on the network and connected to one or more modems, it would be nice to see fax support added. Global Village has proven with its OneWorld servers that fax transmissions over a network aren't outside the realm of possibility. Meanwhile, Stalker's PortShare Pro dial-out support is perfectly adequate for faxing.

One nifty feature that doesn't fit neatly into any category is the capability to send a brief message from the QuickStream Manager utility to any user or users logged into the QuickStream with the SonicPPP Client. The network administrator can use this one-way messaging feature to warn users of an impending shutdown, for example.

Documentation and support

Sonic Systems offers technical support by telephone, fax or e-mail, and responds promptly and professionally. The trouble-shooting guide included in the QuickStream manual lists several difficulties that might arise and provides clear suggestions for what to check and what to try to resolve the problems. The manual even includes an introduction to the networking issues involved in remote access for those who may not be familiar with all the ins and outs.

Conclusions

Sonic Systems has a real winner with its QuickStream/3 remote-access server, at once powerful and easy to use. The QuickStream/3 fully supports remote access with such AppleTalk mainstays as Claris Corp.'s FileMaker Pro (see review, previous page) and CE Software Inc.'s QuickMail, while offering compatibility with increasingly common TCP/IP-based network resources.

Large companies that need to support many simultaneous dial-in users should look at more industrial-strength solutions such as Xylogics Inc.'s Annex servers, but businesses that need to support one to several simultaneous users should take a serious look at the QuickStream. Shiva Corp.'s LanRovers are better polished with more integrated software, but the QuickStream will save time for the harried network administrator without sacrificing functionality for the end user.

The QuickStream/3 loses a point in the compatibility category for failing to support Global Village modems out of the box (the same box that hypes compatibility with those modems), but since that's the worst thing we can say about the QuickStream, and it's not an insurmountable problem, we still strongly recommend it.

Sonic Systems Inc. of Sunnyvale, Calif., can be reached at (408) 736-1900 or (800) 535-0725; fax (408) 736-7228; info@sonicsys.com; http://www.sonicsys.com. □

score card

QuickStream/3

Sonic Systems Inc.
Overall value ◆◆◆◆ **List price: $999***

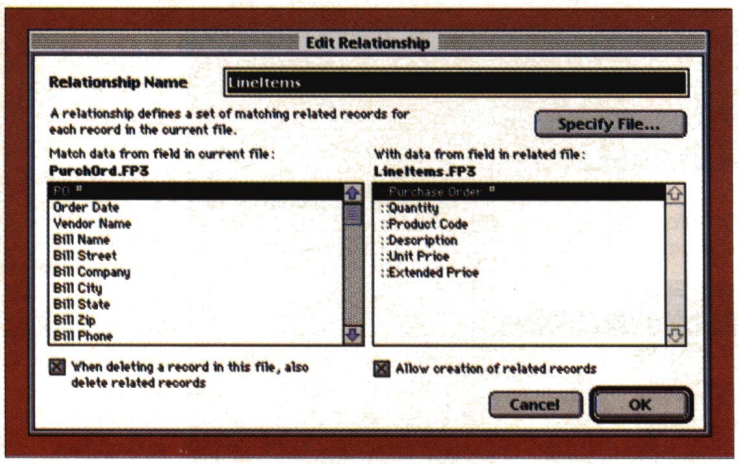
The QuickStream/3 three-port PPP server is a pleasant surprise in the growing field of remote-access servers. For a reasonable price, the QuickStream server offers a great selection of features and impressive ease of use. The server is small and unobtrusive, if not particularly stylish, and our biggest complaint is that hooking up a Global Village TelePort modem will require the purchase of a custom cable or adapter that may not be easy to find in Mac-oriented stores. Sonic Systems has put together a good package, including free client software and dial-out support from Stalker Software, and it all meshes together nicely.

Performance ◆◆◆◆ **Compatibility** ◆◆◆
Features ◆◆◆◆ **Documentation/support** ◆◆◆◆◆
Configuration ◆◆◆◆◆

**Dial-out option, $249.*

More Reviews Online

We've got two exclusive on-line reviews this week: Apple's Internet Connection Kit and a comparison of two ColorSync 2.0 profilers, Color Solutions Inc.'s Color-Blind and The Color Partnership's Color Synergy, can be found in MacWEEK Online on CompuServe (go macweek), eWorld (shortcut: macweek) and the Web at http://www.zdnet.com/~macweek/.



The biggest new feature in FileMaker Pro 3 is the capability to create relational databases. Using the Define/Edit Relationships dialog box, you simply select the related file and the field in the parent and child files that is used to join the two.

FileMaker

From Page 25

phase commit and referential integrity found in high-end database managers, these features are clearly outside the realm of the business users who make up Claris' target audience. These users will find that FileMaker can now tackle a much broader range of applications — such as inventory-asset management, invoicing and call tracking — that previously would have required a higher-end, more difficult program such as ProVue Development Corp.'s Panorama, Blyth Software Inc.'s Omnis7 or ACI US Inc.'s 4th Dimension.

Crowd pleasers

FileMaker Pro 3 offers dozens of other new features that will appeal to the casual user and solution provider alike.

On the high end, improvements in scripting, such as conditional branching and looping, extend the application-development opportunities by giving developers much greater control over the program's behavior. With the LOOP..END LOOP commands, for example, you can now perform tasks, such as row-by-row processing, that were previously very difficult or impossible. Using the conditional processing controls (IF..THEN and IF..THEN..ELSE), you can test for certain events, such as the name of the user, and perform different tasks based on their status. For example, you could have a start-up script open to a management-overview layout when a manager opens the program and an order-entry screen when a data-entry person opens the same application.

Forty new calculation functions, field validation, indexing and the capability to execute Apple-events scripts all further enhance FileMaker's development environment.

New TCP/IP network support also increases cross-platform and application-deployment opportunities because Windows clients are no longer restricted to AppleTalk and IPX protocols for sharing data with Macs. Also, since TCP/IP is the Internet's native protocol, you can now share FileMaker Pro data from virtually anywhere.

Although the lion's share of FileMaker Pro 3's enhancements are targeted toward application developers, the program's ease of use makes them available to anyone. Text handling is now much more sophisticated, as fields can have embedded tabs and paragraph formatting. You can now perform mail merges entirely within FileMaker, rather than having to go out to a word processor.

The program can now automatically create a database from virtually any delimited text file. For example, you can save a Microsoft Excel worksheet in any of a variety of text formats (such as comma- or tab-delimited), open the file with FileMaker and it will automatically create a database for you. Previously, this would have required separate database-definition and data-import processes.

> FileMaker's relational database features and scripting tools are very well-designed and will please existing users while broadening the program's appeal.

Family affair

FileMaker Pro is now native on Power Macs and can be installed in 680x0, Power Mac or fat-binary flavors. On the Intel-standard PC side, a 32-bit version is available for Windows 95 and Windows NT. The FileMaker Pro Server, still a Mac-only product, has also been significantly upgraded as well. FileMaker Pro Server 3 now handles up to 100 database files (up from 16); supports AppleTalk, IPX/Sequenced Packet Exchange and TCP/IP protocols; and offers the administrator more control over server operations such as backup and log-file review.

Cross-platform sites that do not envision upgrading from Windows 3.x to Windows 95 are bound to be frustrated by Claris' failure to support the 16-bit Windows environment with this upgrade. Those who want to share databases between Mac and Windows clients may be forced to upgrade to a 32-bit Windows environment (95 or NT) faster than they had planned.

Performance

Power Mac-native speed makes FileMaker Pro 3 feel appreciably snappier than Version 2.1. Claris has made some other changes that have improved performance. You can now control indexing on a field-by-field basis. This has its most dramatic impact on data-import operations: Indexing now occurs only when a record is searched for, not whenever data is imported as in previous versions. You can choose to not index fields that are never used for searches, or have indexes created and saved once but not updated all the time.

FileMaker Pro's previous 32-Mbyte file-size limitation has been expanded to 2 Gbytes, making databases with records that number in the millions much more feasible. Also, you can choose to use external file references for container fields, eliminating the need to store large objects, such as pictures or sounds, directly in the data file.

Networked users should be aware of a glitch because of the absence of Open Transport 1.1 at the time Claris released this upgrade. FileMaker clients, even on PCI-based Macs, need to use MacTCP for TCP/IP connectivity until Open Transport 1.1 is available. Oddly, though, FileMaker Pro Server 3 can use Open Transport 1.0.8.

Documentation and support

FileMaker Pro's printed documentation has been cut in half as Claris continues to move its help on-line. While the on-line help is wonderful and easily accessible, it's still not a substitute for a comprehensive printed manual, which is much easier to flip through.

Claris offers a variety of support options, including free (toll call), fax-back, on-line, pay-as-you-go and comprehensive fee-based services. We found the free service frustrating; we gave up after waiting on hold for 15 to 20 minutes every time we called. If you need frequent support, you're probably better off with one of the fee-based options that begin at $129 a year.

Conclusions

With Version 3, Claris has given FileMaker Pro a much-needed boost to its basic capabilities. New relational database features and scripting tools are very well-designed and will please existing users while broadening the program's appeal to a wider audience.

The lack of a Windows 3.x version is bound to be an issue for cross-platform sites that have yet to upgrade to a 32-bit version of Windows. We hear that Claris is working to address this trend and hope that the company will do the right thing for its existing 16-bit Windows installed base.

For Mac users, though, there is no reason not to rush out and upgrade to FileMaker Pro 3. Claris should be commended for its success in revamping FileMaker while retaining its most important characteristic, its ease of use.

Claris Corp. of Santa Clara, Calif., is at (408) 987-7000 or (800) 554-8554; fax (408) 987-3932; http://www.claris.com. □

For the record

Our review of Interactive Media Corp.'s Special Delivery 2.1 and Pierian Spring Software's Digital Chisel 2.0 in the Dec. 11, 1995, issue listed an incorrect fax number. Interactive Media's fax number is (415) 324-4590.

reviews FORUM

DataDock array update

Our previous evaluations of PCI SCSI cards highlighted the substantial performance advantage these accelerated cards provide. MacWEEK Labs' tests of ATTO Technologies Inc. ExpressPCI-MC card in particular showed that, for demanding prepress and digital video tasks, it doesn't get much faster than a striped array of very fast disks with a dual Fast and Wide SCSI-2 card (see 10.02.95, Page 36).

An earlier review crowned MicroNet Technology Inc.'s DataDock as the fastest 4-Gbyte array we've tested, but it gave short shrift to the special features of the DataDock removable-drive enclosure itself (see 09.25.95, Page 58). Since then, MicroNet has dropped the price of the array to $5,260, making this array an exceptional value.

We've tried previous dockable drives with uneven results, but our initial skepticism about the DataDock proved to be unfounded. During the months that we used a couple of two-bay DataDocks, there was little to criticize and much to admire.

More than anything, the DataDock storage and transport systems give you a healthy portion of flexibility. Available modules cover all the bases, including hard drives, arrays, DAT units, and magneto-optical and SyQuest drives. MicroNet has shipped a DataDock version of Iomega Corp.'s 1-Gbyte-cartridge Jaz drive.

Using the system is as transparent as possible, reflecting attention to detail. Modules spin down and can be removed only after they have been properly ejected via software. Drives are otherwise locked into their bays and can't be removed accidentally. Each bay includes a monitoring system, and the DataDock case is also heavy enough to remain stationary during even the most enthusiastic module insertion or removal.

No doubt about it, the DataDock is a class act. Whether it makes sense for applications other than its obvious task of moving very large pre-press and digital video files depends on how MicroNet supports the product line's options and keeps prices dropping. Meanwhile, those who must juggle the sometimes-conflicting storage requirements of many users should find prudently deployed DataDocks no more expensive than decidedly less flexible array alternatives. — *By Dale Coleman*

Send your comments to MacWEEK Reviews Department, 301 Howard St., 15th Floor, San Francisco, Calif. 94105; fax (415) 243-3602; reviews@macweek.com. Include your name, address and phone number. We reserve the right to edit for clarity and length.

Maclan Connect 5.51 links Macs to PCs, peer to peer

By Dan Weiss

With Miramar Systems' app System 7.5 and Windows 95 can operate as peers.

In a mixed environment of Macs and Intel-standard PCs, you can put the disparate systems on the same physical network but still be unable to exchange files because of protocol and operating system differences. Miramar Systems Inc.'s Personal Maclan Connect allows a Windows-based PC to log into AppleShare volumes, share PC directories with Macs and lets both sides print to the other's printers — solving the problem for LocalTalk, Ethernet or token-ring networks.

Miramar recently released Version 5.51, which includes an improved AppleTalk protocol stack compliant with Windows 95's Win32 API. Missing from Version 5.51 is support for Windows 95's long file names and Network Neighborhood, although the company promises these features, along with increased compatibility with other protocol stacks, in a release sometime in the early part of this year.

Maclan will run on any 386-based PC or higher with at least 4 Mbytes of RAM, Windows 3.1 or later and an Ethernet, LocalTalk or token-ring card. It is priced at $199 for a single-user license; a 10-user pack is $999. Upgrades from previous versions are $99 per user.

Price is at the heart of the value of Maclan, since each PC needs a copy to make a LAN peer-to-peer. While there are 30-user and 100-user discounts, if you want to bring a large number of PCs and Macintoshes together, then a dedicated file server may be a better choice. The disadvantage is that you'll lose the flexibility of peer-to-peer networking and print serving.

Install.exe

For Mac-centric shops, installation and deinstallation of PC software can be major issues, and we were impressed with Miramar's efforts. The Install program is robust, and you can safely install the whole package without reading the manual. The trickiest part involves properly setting up your network card, although in many cases this step may have already been done. As the Maclan software is copied to your PC's disk, you are notified when system files are changed, and the installer makes backups of the originals. When the process is finished, you are given a log that lists all changes made.

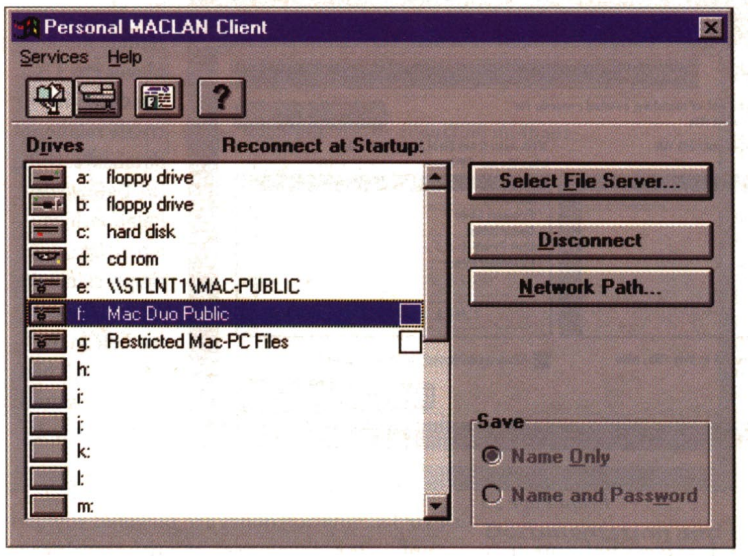
Under Windows 95, you must take an additional step of registering the AppleTalk protocol and service in the Network property sheet. This is a one-minute process, after which you have to restart your computer. (If you forget this step, you will get an error message saying AppleTalk was not installed, which may lead you to incorrectly believe the whole installation failed.)

Deinstalling is almost as easy. If you are using Windows 95, you must remove the AppleTalk Client and Protocol from the Network property sheet before starting the process. The installer will remove all necessary Maclan files and fix the changed system files.

Services

When everything is up and running, you have access to Personal Maclan's three main programs: File Server, Print Server and File Client.

File Server allows you to turn your PC into an AppleShare-like server that is accessible by Macs and any PCs running Maclan. The server functions run in the background and in conjunction with the other Maclan components. File Server offers the standard AppleShare features, including group and password security. To bridge the gap between the Mac and PC file systems, Maclan's server maintains an editable list of DOS' three-letter file extensions and the associated Macintosh file types and creators. When a PC volume is mounted on a Mac, known files show up with the appropriate icons.



The File Client software in Miramar's Personal Maclan Connect 5.51 lets you mount AppleShare or System 7 file-sharing volumes through an interface similar to the Mac's Chooser. You can even set volumes to mount automatically at start-up.

The Print Server creates a PC-based print spooler that makes non-AppleTalk PostScript printers available to Macs and AppleTalk printers available to PCs. Setting up and using both of Maclan's server products are easy and straightforward.

The File Client is the tool that most users will be interested in, as this provides direct access to Mac-based files and printers over the network from a Windows machine. You must first assign each shared Mac volume a PC drive letter, such as E:, F: or G:, via an interface that is similar to the Mac Chooser. Account names and passwords must be defined on the server and are handled just as they are for System 7 file sharing. Once the Mac volumes are mounted, the PC treats them as if they were local drives and has read and write access within the limits set in the server's access privileges.

PCs running File Client can also access Mac printers shared over the AppleTalk network. Any Mac printer on the network can be used with PCs, but some non-PostScript printers won't work with Windows 95.

Performance and documentation

Maclan offers performance comparable to similarly equipped Macs; we copied and opened cross-platform files from the Microsoft Office suite of applications across the Maclan network and found performance to be quite acceptable. File transfer speed varies in direct proportion to the power of the CPU. For instance, copies to and from a 90-MHz Pentium clearly outperformed slower Macs. We were so impressed with the speed of Maclan's server component that we think smaller workgroups should consider dedicating a high-performance PC with Maclan as a cross-platform file server. Such a setup can improve performance over peer-to-peer file sharing at a low cost. This won't work for larger groups, since no more than five computers can connect simultaneously to a Maclan file server.

In our tests, printer sharing tended to be more a function of the speed of the printer than the system. Since both the sharing of PC printers to Macs and Mac printers to PCs involve establishing spool files on the PC, it is important that the machine running Maclan have plenty of free disk space.

The installation and operation of Maclan is documented so well with on-line help and read-me files that you can avoid reading the manual altogether. If you do choose to crack the book, you will find it well-written and full of the details you need to know to avoid the pitfalls of running under Windows 95. Miramar's technical support is available by phone, fax, BBS and e-mail. The staff was easy to contact and knowledgeable about the product and Windows in general. During testing we improperly deinstalled the product, and technical support was able to get us straightened out in one short call.

Oops

While Maclan is generally solid, there is a major bug in the product: When running Miramar's AppleTalk stack and Microsoft's TCP/IP stack, the File Client program crashes whenever you mistype your user name or password. In most cases this will not crash other programs, but you will need to restart Windows before using the File Client again. Miramar said it will fix this problem in Version 5.52, and a patch will be available from its Web site for users of Version 5.51. During the testing, we did not encounter any other crashes or failures.

Conclusions

Personal Maclan Connect is a very good business solution for connecting PCs to Mac networks. Adding PCs to Mac networks allows PCs to use Mac printers and share files as well as gain access to PC resources from the Mac side. The File Server portion out-performs System 7 file sharing in many cases, and the installation process is easy for Mac and PC users to understand. Miramar's Windows software melds the best of Mac and PC interface styles.

The combination of file and printer sharing in one package makes this a good value in small quantities. Even with 100-user discount packs, however, a dedicated file server will be more cost-effective in light of Maclan's limit of five concurrent users per machine. Windows 95 users will also need to consider how important support for long file names and Network Neighborhood is, but both features should be available in the first part of this year.

Miramar Systems Inc. of Santa Barbara, Calif., can be reached at at (805) 966-2432 or (800) 862-2526; fax (805) 965-1824; sales@miramarsys.com; http://www.miramarsys.com/. □

score card

Personal Maclan Connect 5.51

Miramar Systems Inc.
List price: $199*
Overall value ◆◆◆◆

Personal Maclan Connect does a very good job of giving Intel-standard PCs access to AppleShare or System 7 file-sharing volumes, while also sharing PC volumes and printers with Macs across LocalTalk, Ethernet and token-ring networks. In addition to Windows 3.1, Maclan 5.51 works with Windows 95, though it does not display long file names on shared local volumes. Maclan is very easy to install and deinstall, and performance of the file-server components is especially speedy. A bug makes co-existence with Microsoft's TCP/IP stack a little rocky, but the company promises a speedy fix with Version 5.52, due soon.

Performance ◆◆◆◆
Features ◆◆◆
Ease of use ◆◆◆◆
Documentation/support ◆◆◆◆

**For one user; 10-user pack is $999. Upgrades from previous versions are $99 per user.*

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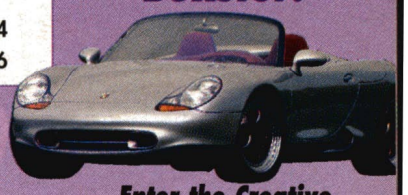

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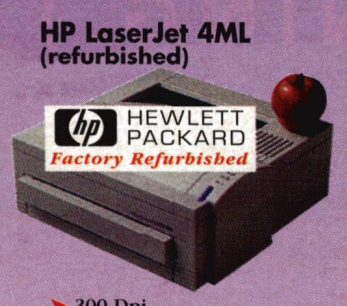

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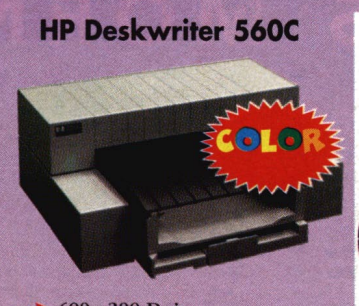

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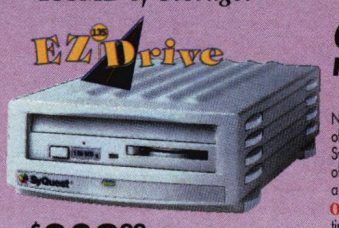

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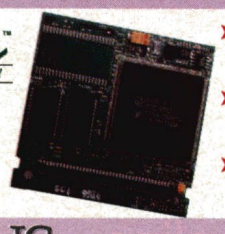

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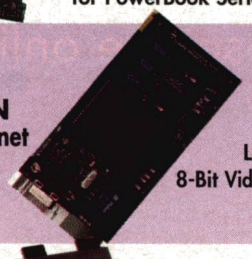

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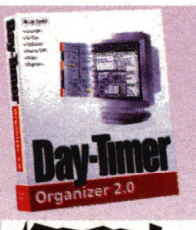

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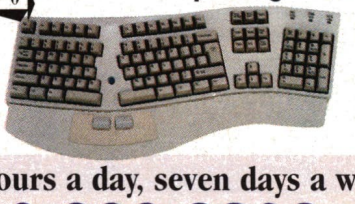

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IN TRANSLATION

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INTEGRATED SOFTWARE

Office suites gaining ground in small-office, home market

By Michael Miley

Some users, seeking alternatives to Microsoft Office, with its large RAM and disk requirements, are discovering what small-office and home-office users already know: An integrated package is often quite adequate for their computing needs.

But for small businesses, an all-in-one software package could be all you need.

Products such as Microsoft Works from Microsoft Corp. of Redmond, Wash., or ClarisWorks from Claris Corp. of Santa Clara, Calif., include word processing, spreadsheet, database, graphics and communication modules in their suite of applications. These modules are adequate for basic tasks, and analysts indicate they are often sufficient for entry-level and intermediate users. Where they fall short, users may turn to a higher-end integrated package such as RagTime from MacVonk Canada Inc. of Calgary, Alberta, or to a best-of-breed stand-alone product for their database or spreadsheet needs.

"For a small business, Microsoft Office may be overkill, and most of a user's needs may be met with a Works package," said Ray Laracuenta, senior research analyst for Gartner Group Inc. of Stamford, Conn.

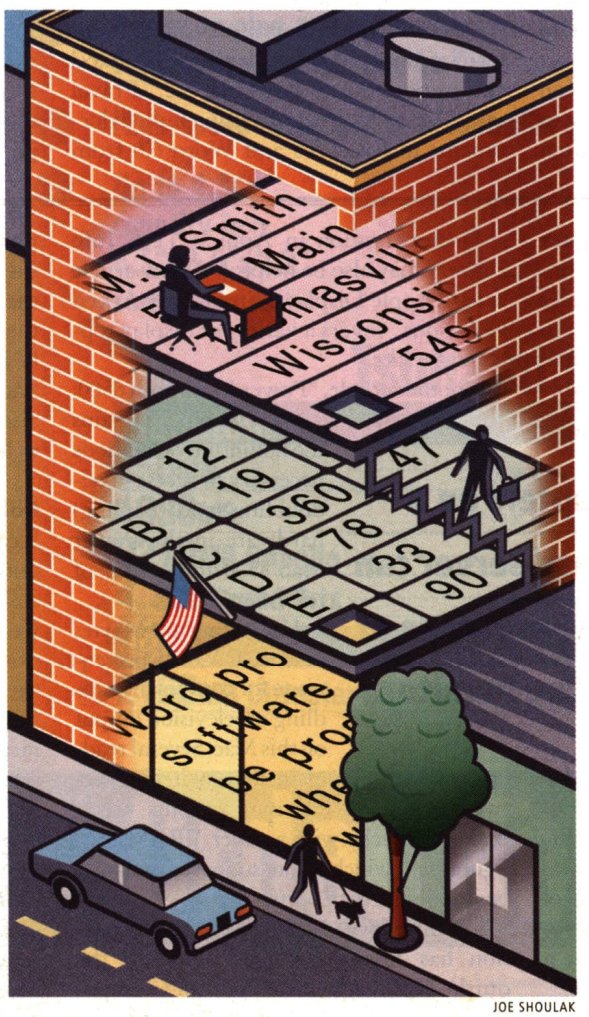
"For larger enterprises, however, choosing an integrated package could mean losing compatibility with the rest of the office, which is often standardized on stand-alone applications such as [Microsoft] Word and Excel," Laracuenta said. "The quicker upgrade cycles of mainstream products [that] tie in with e-mail, groupware and development tools may also be a restraining factor when considering an integrated package for a business."

Small-office scenario

The Mac integrated software market is dominated by ClarisWorks 4.0; Microsoft Works 4.0 is a distant second. Over the past couple of years, ClarisWorks' dominance in the integrated arena has been secured by its good reputation and by the fact that it's often bundled with consumer Macintoshes.

Two other products, WordPerfect Works from Novell Inc. of Provo, Utah, and Great Works from Symantec Corp. of Cupertino, Calif., are no longer being actively developed or marketed for the Macintosh (although they're still being sold for Windows). However, the companies still support the Macintosh versions, and users may occasionally find them for sale at retail outlets.

This reflects Claris' and Microsoft's control of the category, generally defined by analysts as the small-office, home-office and educational markets. Market analysis further indicates most buyers in these markets are occasional and entry-level users who find that an integrated package is all they need for basic tasks such as memos, letters, financial reports, small employee databases and occasional newsletters. Some business consultants or contractors, however, occasionally need the feature set that products such as Word, Excel, WordPerfect or Claris' FileMaker Pro provide.



JOE SHOULAK

Arthur Deschene, for example, finds ClarisWorks to be quite adequate for his home real estate business in Austin, Texas, while he finds that he needs other tools to accomplish more-specialized tasks, such as WordPerfect for table production or Adobe Systems Inc.'s PageMill for Web-page creation.

"I use ClarisWorks to track commissions and visitor traffic, using the word processor, spreadsheet and database modules, as well the Ready Art libraries, to create fliers and announcements," Deschene said. "It's really quite capable for these kinds of jobs. But I'm transitioning now to Web-page production and it's just too cumbersome to do it in ClarisWorks. I use PageMill instead for my more complex pages."

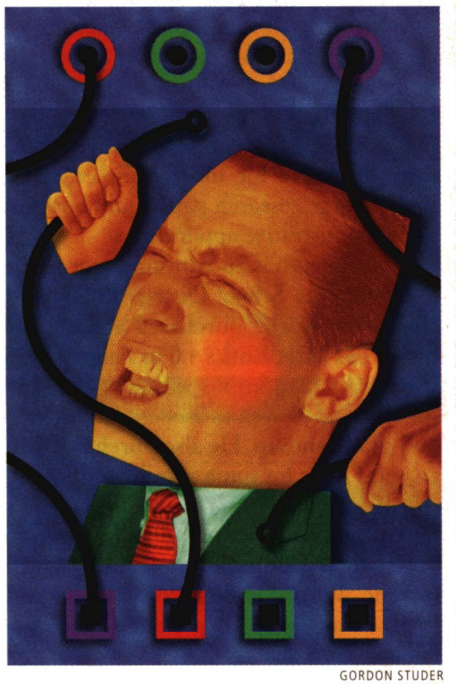
Other small-office users have more limited needs and find a Works package entirely adequate. Tim Blair, a veterinarian for the Tomahawk (Wis.) Veterinarian Clinic, has used Microsoft Works since Version 2.0 for basic business tasks, though he also uses a commercial veterinarian package for his key client tracking.

"Works is great for many of the things I do every week," Blair said. "I use the word processor to create a client visit sheet, a list of services and to communicate with my clients. I export client data from the vet database into the Works database and print mailing labels, though I've had to work to get my labels to print right. I also use the spreadsheet for the employee payroll. Finally, I use a Works wizard to automatically create gift certificates and cards. And the graphics are great in 4.0."

Works in education

In the educational market, teachers and administrators find that a Works package is a good way to get first-time users up and running on a com-

See Solutions, next page



GORDON STUDER

MACINTOUCH

RIC FORD

Matching Macs and monitors is harder nowadays

Until recently, it was easy to match Macintosh computers and Apple monitors, but things change. New monitors do not work with the old IIci and IIsi video ports, and older monitors do not work with the latest Power Macs.

Throw in energy saving and the awful Sounds & Displays control panel; add extra issues for AudioVision monitors; and then factor in software control systems using ADB connections, and the formerly simple Mac environment starts looking a little like Windows.

Fortunately, there are solutions to some of these problems. Griffin Technology Corp. makes a variety of adapters for matching Macs and monitors, and the company maintains a very helpful database of monitor specifications on the Web at http://www.nashville.net/~griffin/.

Griffin's Mac Sync Video Adapter adds "sync on green" to the video output signal to support certain older third-party monitors and cables on newer Macs (see 08.14.95, Page 46). Griffin recently added the Mac Sync II adapter, which works a reverse sort of magic, producing separate sync to support modern monitors on older Macs, such as the IIci and IIsi.

See MacInTouch, next page

SOLUTIONS

From previous page

puter, so students have to learn only one program to accomplish a set of tasks. File compatibility between the Macintosh and Windows versions is also a plus, since school districts often have a mixed environment, with teachers and students running Macs and administrators running Intel-standard PCs.

However, Microsoft Office remains the suite of choice for more-complex tasks, such as large research papers and business and administrative applications.

Ed Gilbreath is an administrator in the Weld County School District in Greeley, Colo. His district purchased about 1,200 copies of ClarisWorks 4.0 in August 1995 for use in its administrative offices and for teachers as well as students in the second grade and up. He also purchased Microsoft Office for some administrators and will be acquiring more, since Microsoft's Open License Program will allow him to buy standard 25-pack office suites (which include Word, Excel, PowerPoint and Mail) for as low as $48 per bundle, according to Gilbreath.

Everybody's happy

Gilbreath reports widespread satisfaction with ClarisWorks, used mainly on Macs but also on Windows machines, for nearly everything, including basic spreadsheet accounting, student papers and instructor research.

"We set up three two-and-a-half-hour training sessions in the computer labs for anyone who's interested in learning the product," Gilbreath said. "The teachers are very satisfied with what it can do for them when they set up their materials, and kids have no problem making things happen."

One project uses world pollution data downloaded from the Internet and stored in the ClarisWorks database, while another involves spreadsheet tables for analyzing how shadows are cast as you move away from the equator. The biggest complaint he's heard from users is about the initial file incompatibility with ClarisWorks 2.0 and 3.0, a problem that was solved with the recent upgrade.

Works usage is not confined to the K-12 market, however. Susan Myers, who is a professor on the faculty of Central Methodist College in Fayette, Mo., and teaches in a satellite program of East Central College in Union, Mo., uses Microsoft Works and Office for personal and professional use.

"I teach a lot of students in education, nursing and business, and since this is a rural area, most of them aren't very sophisticated about computers," Myers said. "Microsoft Works is excellent for anyone new to the computer or for doing simple projects like letters or papers. The wizards are really useful to help get them going."

Myers uses the wizards for setting up templates for essay forms and multiple-choice tests, though she moves to Microsoft Office for her more demanding tasks. These are presentations done in PowerPoint and large research papers with complex formatting requirements done in Word.

One database project, however, was accomplished using the Works database module. This was a library catalog of thousands of books, cross-tabulated for comparing teachers' classes. Works handled the project without choking, though some users have complained of sluggish redraw in the database module.

A few business users eschew ClarisWorks or Microsoft Works as Office alternatives because their business requirements are too complex. These users may look to RagTime 3.2 from MacVonk Canada.

A small player in the North American market, RagTime has been in wide use in Europe for a number of years. Often paired with page-layout programs such as Adobe PageMaker and QuarkXPress, RagTime 3.2 incorporates spreadsheet and business graphics in its live frames, as well as database data from its MiniFiler application. With a ground-up rewrite in the works, targeted for release sometime this quarter, RagTime 4.0 will add OpenDoc support and extensive drawing features to its business graphics and picture formats.

A higher-end office

A large subset of RagTime users are business people and consultants who say they use the program for complex reports and presentations.

One such person is Hanafi Fraval, a business consultant in Denver. A recent project of his involved developing a business plan, co-sponsored by Pepsi Cola Co. of Somers, N.Y., for deploying the mobile GeoNova sphere, a 150-foot-in-diameter space for theatrical and multimedia events, made by Visioneering International Inc. of Atlanta.

"One of my business models uses 26 interrelated spreadsheets, developed in Excel and imported into RagTime 3.2," Fraval said. "I tried to develop it using linked documents in Excel 5.0 and Word 6.0 from Microsoft Office, but the model would repeatedly bomb. When I called Microsoft about the problem, they acknowledged that it was too complex for Office and OLE to handle. I never get such bombs with RagTime. It's incredibly stable."

Another RagTime user is Loren DeShon, a financial planner in Bellevue, Wash., who does jobs in conjunction with Financial Network Investment Corp.

"I've used RagTime for mail-merge projects, for writing letters and doing newsletters, and for building templates for simple graphs of client positions," he said. "I've also developed templates for retirement planning with spreadsheet and graphs for some of my clients. A while back, I tried to do them in ClarisWorks and Microsoft Works but gave it up. I couldn't lock out cells for the spreadsheets so that tabbing through them would streamline data entry, but I accomplished the same task in RagTime with no problem."

DeShon said he is looking forward to RagTime 4.0, which is in beta now, because the new version will be cross-platform. Most of his colleagues use Windows machines and he'd like to convert his templates for their use. □

New office suite on horizon

German developer Star Division GmbH of Hamburg, Germany, is preparing a Power Macintosh version of StarOffice 3.0 in English. Its cross-platform software suite will soon be available for OS/2, Unix and Windows 95. The product will include the StarWriter word processor and StarDraw graphics modules, as well as a StarCalc spreadsheet module that can read and write Microsoft Excel files.

Written in Solar, the company's object-oriented programming environment, the suite is being pitched as a Microsoft Office alternative for the U.S. market and will contain such features as floating tool bars and palettes, a unified interface, and the StarBasic scripting language. StarWriter will also support RTF and HTML documents, and StarDraw will include templates for presentations with sounds, animated sequences and transitional effects. — By Michael Miley

MACINTOUCH

From previous page

Griffin Technology Corp. of Nashville, Tenn., can be reached at (615) 399-0990; fax (615) 399-7060; griffin@telalink.net.

Common-sense codes

Modern Macs check their video ports at start-up for the presence of external wiring that signals a "sense code" to identify the type of monitor present. Griffin's adapters provide these sense codes, and you can use the adapters on a "headless" server to fake the presence of a monitor.

This may be necessary for remote-control software, such as Farallon Computing Inc.'s Timbuktu Pro, and it is helpful when using a passive video switch box to share a monitor among several Macs. If a monitor is not connected at start-up, it may not work later when switched to that Mac; an adapter supplying sense codes can eliminate this problem.

Griffin's products cover a full range of needs, but Sony Corp.'s MacView adapter is one other option. It connects Intel-standard PC-style monitors and cables to Macintoshes, providing switches to configure sense codes but does not handle sync conversion. MacView is available from Macintosh mail-order vendors.

Tech notes and tips

The Sound & Displays control panel is due for replacement with System 7.5 Update 2.0. If we get lucky, the new control panel will address design problems with Apple's sound-configuration user interface, as well as its display-configuration interface. Mac buyers will still need to understand ADB and audio cabling when setting up multimedia monitors, and they will have to make sure the appropriate extensions and control panels are all installed and enabled, but an improved user interface could eliminate a lot of current confusion.

Adapters on a 'headless' server can fake the presence of a missing monitor.

Documentation in Apple's Tech Info Library may also be helpful. A new article titled "Apple Displays: Frequently Asked Questions" covers a variety of display topics and tricks.

Another article, "Power Macintosh 8500: Video Output Hardware Zoom," explains the nonintuitive methods necessary to access pixel-doubling (and -tripling) hardware in the Power Mac 8500 for output of television signals.

Upgrading to 4 Mbytes of video RAM is a prerequisite for convenient handling of television output on this Mac. Several readers wrote to complain that switching between Mac and television outputs was a major headache with smaller VRAM configurations, which do not support simultaneous output on both ports.

On the Power Mac 7500, experimentation has finally divulged some of the quirks of Energy Saver code and components. Even if Energy Saver Extension is disabled, the computer will drop signals at the video port after a period of time to put the monitor into sleep mode. This may not be healthy for a monitor that is not Energy Saver-aware. Enabling the extension and also setting the Energy Saver control panel to Never prevents this from occurring.

Robert Hess

I cannot complete this column without noting the passing of Robert Hess, a valued colleague and friend. We lost a lot when we lost Robert on Jan. 12. His contributions permeated this column as they did the magazine and the Macintosh community. We will miss him enormously, but the inspirations of his talent, strength and spirit remain with us. □

Comments on MacInTouch are welcome at (508) 897-2621. Please address e-mail to 72511,44 on CompuServe or ricford@macintouch.com on the Internet. The MacInTouch home page is at http://www.macintouch.com/~ricford/.

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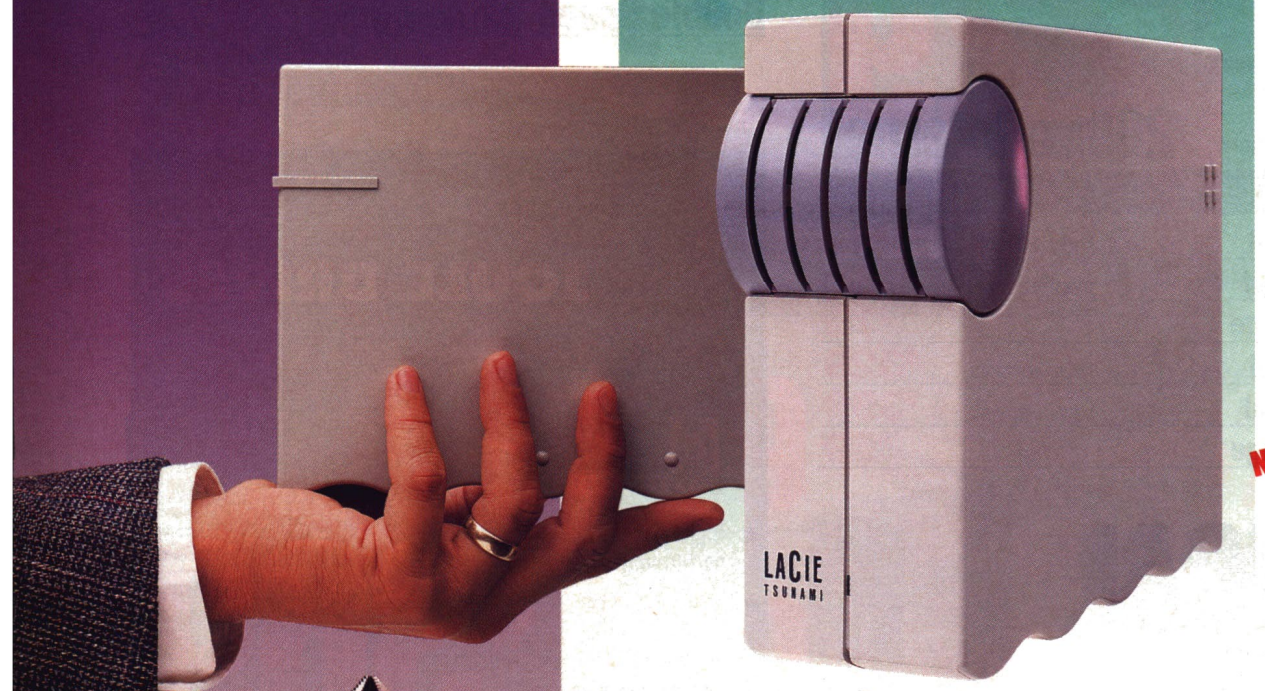

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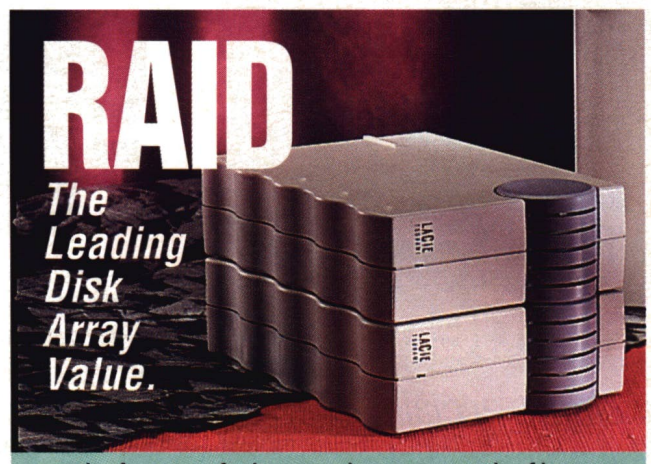

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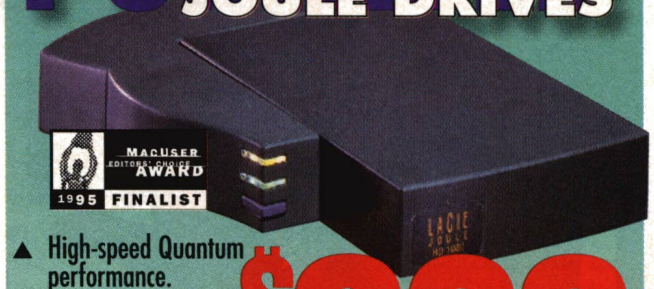

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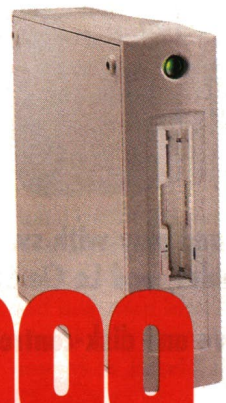

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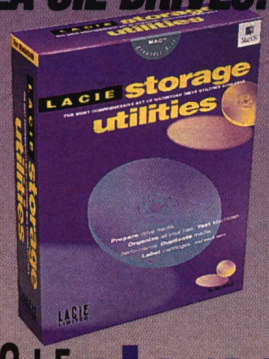

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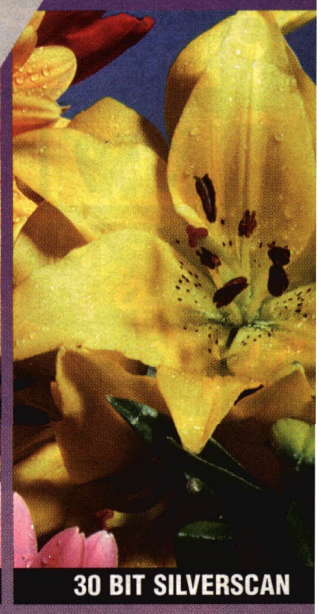

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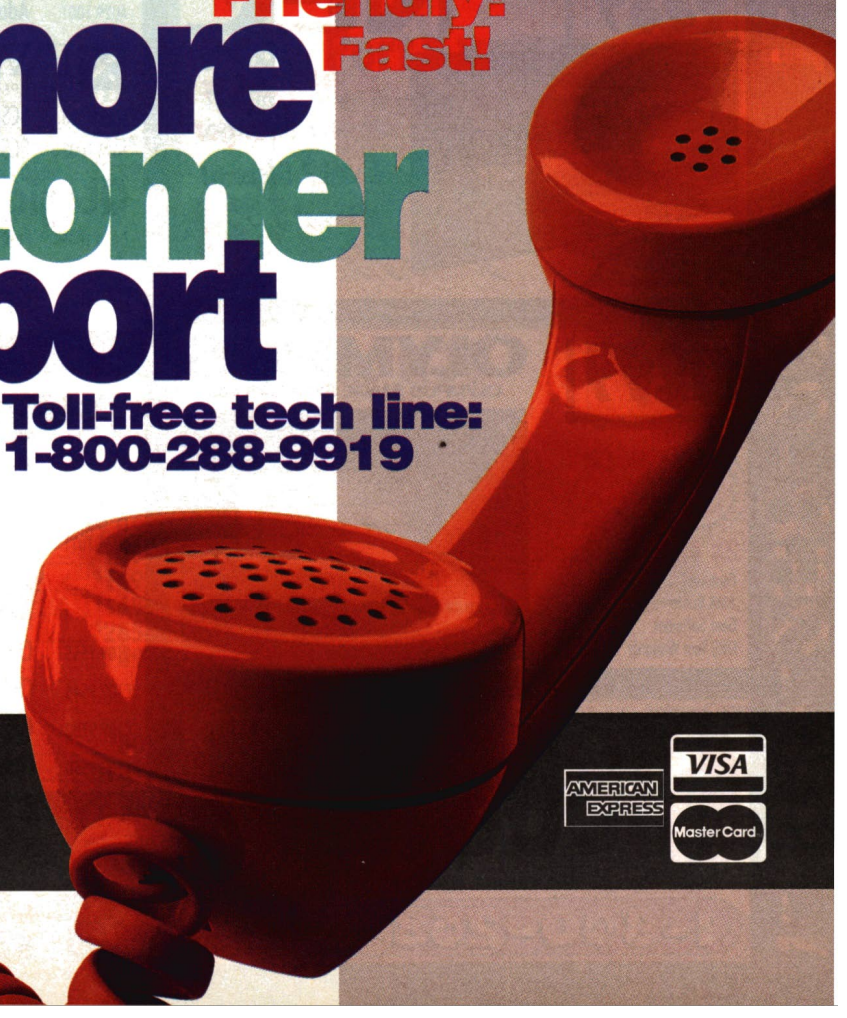

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S198 1012	200MB	$75ea	$73ea	$71ea
S198 1013	105MB	$35ea	$34.50ea	$34ea
S198 1014	270MB	$60ea	$59ea	$58ea
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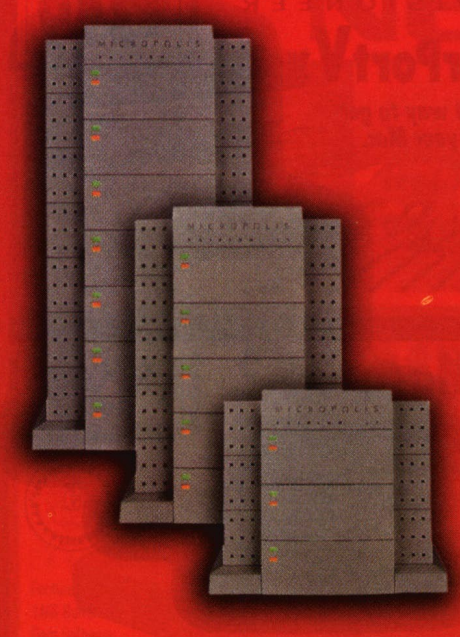

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2.1 GB	DT-32550AV	Seagate Barracuda	8.0 ms	5 yrs	$775	$850
4.3 GB	DT-3243AV	Micropolis NEW LOW PRICE!	8.5 ms	5 yrs	$1,075	$1,150
4.3 GB	DT-15150AV	Seagate Barracuda	8.0 ms	5 yrs	$1,199	$1,275
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2.1 GB	DT-4221W	Micropolis 4221Wide	5 yrs	$775	$850
4.3 GB	DT-15150W	Seagate Barracuda 4 Wide	5 yrs	$1,250	$1,325
4.3 GB	DT-3243W	Micropolis 3243Wide	5 yrs	$1,100	$1,275
9.0 GB	DT-1991W	Micropolis 1991Wide	5 yrs	$2,185	$CALL
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4-8 GB	HP-1533A	DDS-2	$1,299
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1.3 GB	HP-C1716	23 ms	$2,099
1.3 GB	Maxoptix T-III	18 ms	$2,199

MEDIA

Type	*Price*
Syquest 44	$40
Syquest 88	$46
Syquest 105	$54
Syquest 200	$76
Syquest 270	$60
Optical 128 MB	$22
Optical 230 MB	$30
Optical 1.0 GB	$100
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	540 MB		Fireball		185	245
	11 ms Seek	5400 RPM	128K Buffer	3 Year Warranty		
	730 MB		*Value!*		185	255
	11 ms Seek	5400 RPM	128K Buffer	2 Year Warranty		
√	**850 MB**		*Value!*		195	255
	11 ms Seek	5400 RPM	128K Buffer	2 Year Warranty		
	1080 MB Fireball				265	335
	11 ms Seek	4500 RPM	128K Buffer	3 Year Warranty		
	2.2 GB		Capella		595	655
	8.5ms Seek	5400 RPM	1024K Buffer	5 Year Warranty		
	2.0 GB		Atlas		785	845
	8ms Seek	7200 RPM	1024K Buffer	5 Year Warranty		
	4200 MB		Grand Prix		985	1045
	8.6 ms Seek	7200 RPM	512K Buffer	5 Year Warranty		
	4.3 GB		Atlas		1075	1135
	8ms Seek	7200 RPM	1024K Buffer	5 Year Warranty		

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	8ms Seek	7200 RPM	1024K Buffer	5 Year Warranty		
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	8ms Seek	7200 RPM	512K Buffer	5 Year Warranty		

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	8 ms Seek	7200 RPM	1024K Buffer	5Year Warranty		
	4.3 GB Barracuda 4				1185	1245
	8 ms Seek	5400 RPM	1024K Buffer	5 Year Warranty		
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F2915s, 7200RPM, 9ms seek, 5 year warranty		
Quantum Atlas 4.0GB	$1075	$1135
Q34301, 7200, 8.6ms seek, 512K cache, 5 year warranty		
Seagate 9.0GB	$1995	$2095
ST410800, 5400RPM, 11ms seek, 512K cache, 5 year warranty.		

MICROPOLIS

	Capacity				Int.	Ext
√	**2.1 GB** • *Also Available in Fast & Wide SCSI 2*				625	685
	Fast SCSI 2 8 ms Seek	7200 RPM	512K Buffer	5 Year Warranty		
	4.3 GB • *Also Available in Fast & Wide SCSI 2*				1015	1075
	Fast SCSI 2 8 ms Seek	7200 RPM	512K Buffer	5 Year Warranty		
	9.0 GB • *Also Available in Fast & Wide SCSI 2*				1935	2035
	Fast SCSI 2 11 ms Seek	5400 RPM	512K Buffer	5 Year Warranty		

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	2.1 GB • *Also Available in Fast & Wide SCSI 2*				675	735
	Fast SCSI 2 8.5 ms Seek	7200 RPM	512K Buffer	5 Year Warranty		
	4.3 GB • *Also Available in Fast & Wide SCSI 2*				1110	1170
	Fast SCSI 2 8.5 ms Seek	7200 RPM	512K Buffer	5 Year Warranty		
	9.0 GB • *Also Available in Fast & Wide SCSI 2*				2035	2135
	Fast SCSI 2 11ms Seek	5400 RPM	512K Buffer	5 Year Warranty		

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	11 ms Seek	4500 RPM	512K Buffer	5 Year Warranty		
	2.2 GB UltrStar				755	815
	8.5ms Seek	7200 RPM	1024K Buffer	5 Year Warranty		
	4.3 GB UltrStar				1355	1405
	8ms Seek	7200 RPM	1024K Buffer	5 Year Warranty		
	5.3 GB UltrStar				1375	1435
	8ms Seek	5400 RPM	1024K Buffer	5 Year Warranty		

FUJITSU

	530 MB				$175	$235
	9 ms Seek	4500 RPM	256K Buffer	3 Year Warranty		
	1.2 GB				285	345
	11 ms Seek	5400 RPM	512K Buffer	3 Year Warranty		
	2.1 GB				685	745
	8.5ms Seek	7200 RPM	1024K Buffer	5 Year Warranty		
	4.2 GB				1075	1135
	8ms Seek	7200 RPM	1024K Buffer	5 Year Warranty		

SyQuest TECHNOLOGY

DRIVES			CARTRIDGES	
Capacity	**Model**	**External**	**Capacity**	**Price**
88 MB	SQ5110C	$345	44 MB	$40
135MB	SQEZ135	225	88 MB	45
200 MB	SQ5200	395	135 MB	19
270 MB	SQ3270	405	200 MB	70
			270 MB	58

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3-5 GB	35480	4mm	995	1055
4-10 GB	1533A	4mm	1235	1295
24-60 GB	1553A		3195	3295
	Auto Tape Loader			

CONNER

Capacity	Model	Media	Int.	Ext.
2-4 GB	CTD4004	4mm	739	779
4- 8GB	CTD8000	4mm	939	989
20-50 GB	4586		2095	2195
	Auto Tape Loader			

Exabyte

Capacity	Model	Media	Int.	Ext.
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ADD 491MB OF POWERBOOK CAPACITY

APS Q 514

Quantum®

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- Low power requirements for long battery use
- 4500 rpm spindle speed
- 1-year warranty

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OVER 2GB OF STORAGE!!

APS MS 2.0

MICROPOLIS

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- 7200 rpm mechanism
- 5-year warranty

MacUser/ZD LABS 4½

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APS SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS Q 840 Quantum 840 Trailblazer	811MB 4500 rpm	MacUser/ZD LABS 4½	$199.95	$299.95
APS I 1080 IBM DPES 31080	1034MB 5400 rpm		239.95	339.95
APS Q 1080 Quantum 1080 Fireball	1042MB 5400 rpm	◆◆◆◆ MacWEEK; MacUser/ZD LABS 4½	269.95	349.95
APS Q 2210 Quantum Capella VP32210	2103MB 5400 rpm	MacUser/ZD LABS 4½	629.95	699.95
APS ST 4200 Seagate ST 15230N Hawk	4094MB 5400 rpm	MacUser/ZD LABS 4½	949.95	1049.95

APS POWERBOOK DRIVES

Model	Capacity/Features	Awards	Internal	SR1000
APS 170 PB Avatar mechanism	170MB** Each cartridge only $49.95		$399.95	N/A
APS Q 514 Quantum Daytona	491MB 4500 rpm, SCSI drive	*while supplies last!*	199.95	N/A
APS Q 810 Quantum Europa	778MB 3800 rpm, Fast ATA-2 (IDE)		399.95	N/A
APS Q 1.08 Quantum Europa	1037MB 3800 rpm, Fast ATA-2 (IDE)		499.95	N/A

***170MB per removable cartridge*

APS HIGH-PERFORMANCE SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS MS 2.0 Micropolis 4221	1955MB 7200 rpm	MacUser/ZD LABS 4½	$599.95 NEW LOWER PRICE	$699.95
APS Q 2.0 Quantum Atlas XP32150	2050MB 7200 rpm	MacUser/ZD LABS 4½	799.95	899.95
APS ST 2.0 Seagate ST 32550N Barracuda	2047MB 7200 rpm		799.95	899.95
APS MS 2.0AV Micropolis 4221AV	1955MB 7200 rpm		699.95 NEW LOWER PRICE	799.95
APS MS 4.0 Micropolis 3243	4064MB 7200 rpm	MacUser/ZD LABS 4½	999.95 NEW LOWER PRICE	1099.95
APS MS4.0AV Micropolis 3243AV	4064MB 7200 rpm		1099.95 NEW LOWER PRICE	1199.95
APS Q 4.0 Quantum Atlas XP34300	4101MB 7200 rpm	◆◆◆◆ MacWEEK; MacUser/ZD LABS 4½	1199.95	1299.95
APS ST 4.0 Seagate ST 15150N	4094MB 7200 rpm	MacUser/ZD LABS 4½	1299.95	1399.95
APS MS 9.0 Micropolis 1991	8669MB 5400 rpm		1999.95 NEW LOWER PRICE	2199.95
APS ST 9.0 Seagate ST410800N	8669MB 5400 rpm		2199.95	2399.95
APS MS9.0AV Micropolis 1991AV	8669MB 5400 rpm	MacUser/ZD LABS 4½	2099.95 NEW LOWER PRICE	2299.95

APS FAST/WIDE SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS MS 2.0W Micropolis 4221W	1955MB 7200 rpm		$699.95 NEW LOWER PRICE	$799.95
APS Q 2.0W Quantum Atlas XP32150W	2050MB 7200 rpm		899.95	999.95
APS MS 4.0W Micropolis 3243W	4064MB 7200 rpm		1099.95 NEW LOWER PRICE	1199.95
APS Q 4.0W Quantum Atlas XP34300W	4101MB 7200 rpm		1299.95	1399.95

APS ADAPTER & ACCELERATOR CARDS

Model	External SCSI Connection	Price
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QLogic Fast! SCSI MAC PCI-W For Fast/Wide drives	HD 68-pin	379.95
Silicon Express II For NuBus Quadras & Power Macs only. Fast SCSI-2 accelerator card	DB25 connection	499.95
Silicon Express IV For NuBus Quadras & Power Macs only. Fast/Wide accelerator card & adapter	HD 68-pin	849.95

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Item		Price
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APS SQ 3270

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SONY 3080 XLF WIDE *Special $24.95 each*

APS SYQUEST DRIVES

Model	Capacity/Feature	Awards	Internal	SR2000
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APS SQ 3270 Our best performing removable cartridge drive	255MB		349.95	369.95*
EZ135 An affordable alternative to a new hard drive...from SyQuest	135MB		N/A	229.95

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APS CD-ROM DRIVES

Model	Features	Awards	Internal	SR2000
APS T 3701 Sustained data transfer rates up to 1000KB per second	6.7X-SPEED		$399.95	$449.95
APS PD4 600MB optical storage with 4X CD-ROM in one device	CD/MO Combo		N/A	599.95
APS CD-R With FREE TOAST CD-ROM Pro CD-Recording software ($500 value)	Recordable CD-ROM		N/A	999.95*

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Item		Price
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Model	Capacity/Features	Awards	Internal	SR2000
APS HyperQIC™ QIC 3080 Mechanism	2GB	MacWEEK	N/A	$499.95
APS ProDAT DDS-2 Non-Compression Mechanism	4GB		$749.95	799.95
APS HyperDAT DDS-2 Compression Mechanism	8GB		849.95	899.95
APS DATLoader600 Ideal for unattended large network backups	48GB		N/A	2499.95

APS MO DRIVES

Model	Awards	SR2000
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APS PD4 PD – CD-ROM		599.95
APS 1.3 MO A 4MB cache improves performance		1699.95

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APS DLT TAPE BACKUP DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
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APS DLT40 Digital Linear Tape Mechanism	40GB		N/A	5999.95

All APS tape drives include Retrospect® by Dantz®

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- Refused orders subject to 20% restocking fee.
- Listed capacities are formatted
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MEMORY

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Standard 72-Pin Simms:
Quadra 605/630, 610, 650, 700, 800/840AV, LCIII, LC475, LC630, Performa 450-560, 575 and 6115CD, PowerMac 6100, 7100, 8100, WS 80, WS60, WS 95, WS 6150 and WS 8150, 9150.

168 Pin Dimms:
PowerMac 9500, 8500, 7500, 7200

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1MB 80/70NS	8000/8007	32/35
2MB 80/70NS	2000/2007	65/74
4MB 80/70NS	4000/4070	121/135
8MB 70NS	8888	315
16MB 70NS	1601	599
30-pin , 36 bit SIMMS		
1MB 70NS	9070	$45
4MB 70NS	9007	159
4MB PAL SIMMs for II,IIx		
4MB 80/70NS	4100/4107	$149/151
64-pin SIMMs for IIfx		
1MB 80/70NS	8080/8070	$43/43
4MB 80/70NS	4080/4087	155/155
8MB 70NS	N8887	365
16MB 70NS	N1680	665
72-pin SIMMs		
4MB 70/60NS	4032/4632	$106/112
8MB 70/60NS	8032/8632	227/229
16MB 70/60NS	16732/16602	428/448
32MB 60NS	32632	935
72-pin, 36 bit SIMMS		
4MB 70NS	43670	$162
8MB 70NS	83670	339
16MB 70NS	163670	551
32MB 70NS	323670	1221
168-pin DIMMs		
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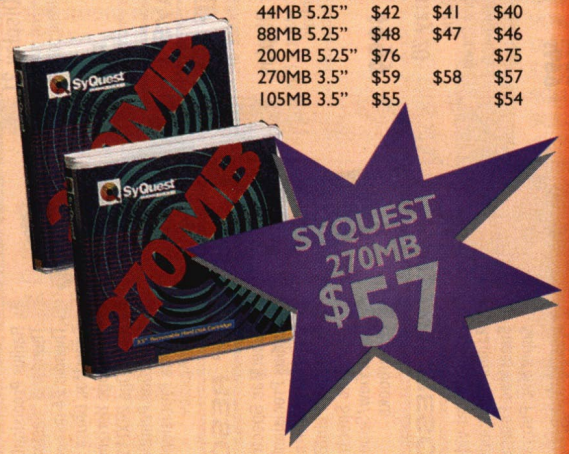

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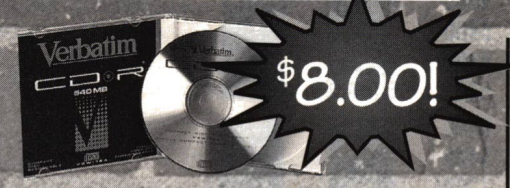

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Turbo 601 100MHz for IIci, IISi W/Adpt	1231
Turbo 601 100MHz IIvx, IIvi, P600	1231
PowerCard 601 100MHZ - *NEW!*	946

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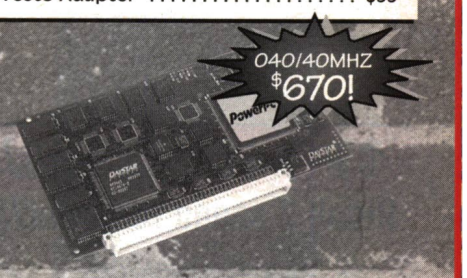

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RADIUS THUNDER 24 GT	490
SPIGOT POWER AV	820

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16MB 70NS	1601	585

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4MB 70NS	9007	155

4MB PAL SIMMs for II,IIx

4MB 80/70NS	4100/4107	$138/140

64-pin SIMMs for IIfx

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4MB 80/70NS	4080/4087	152/154
8MB 70NS	N8887	365
16MB 70NS	N1680	665

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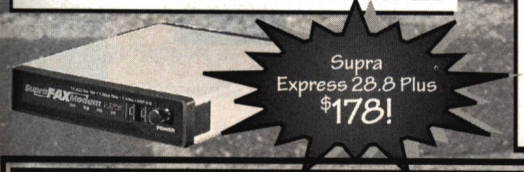

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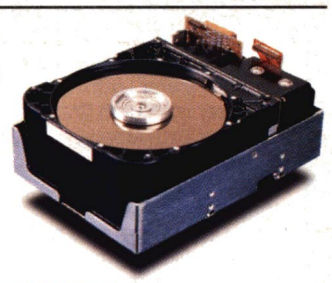

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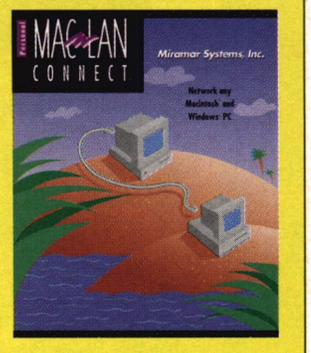

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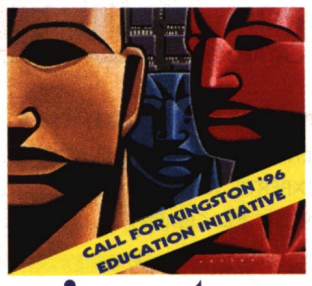

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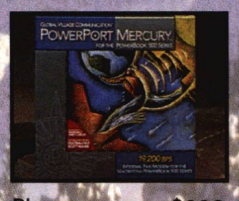

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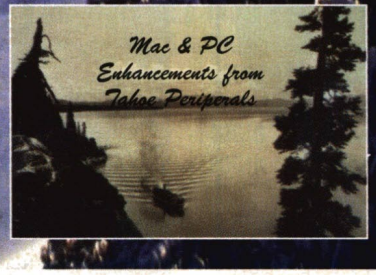

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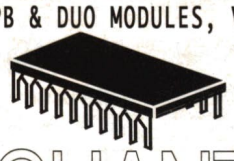

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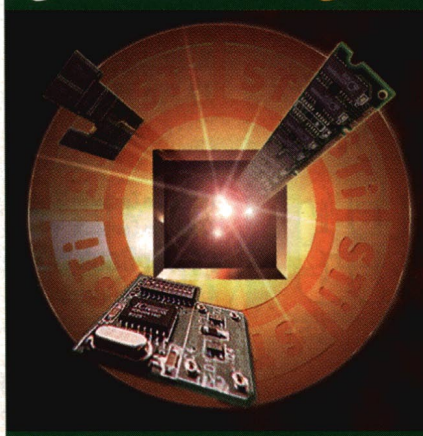

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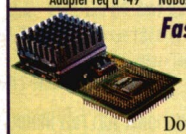

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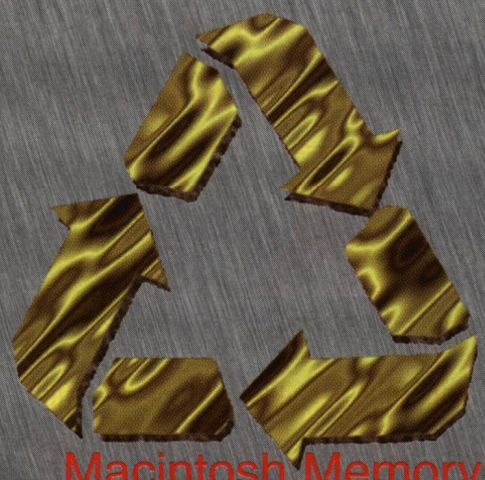

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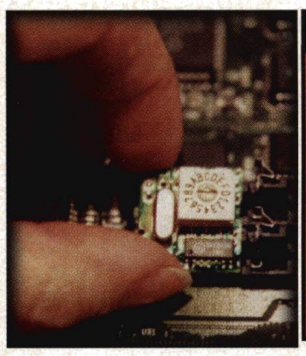

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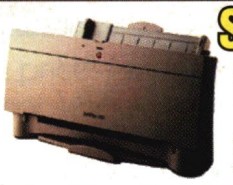

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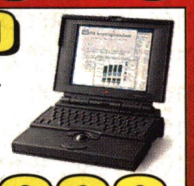

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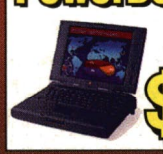

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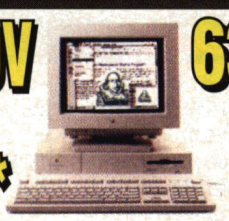

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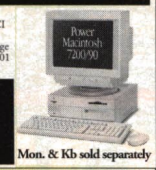

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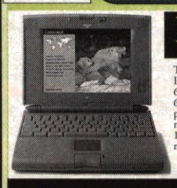

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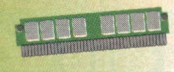

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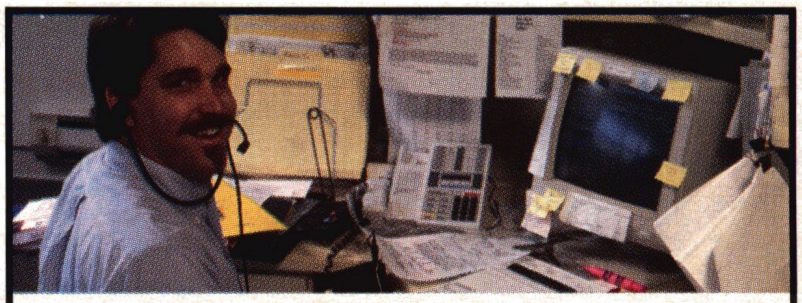

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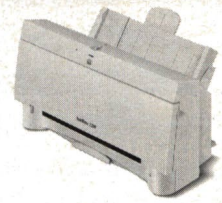

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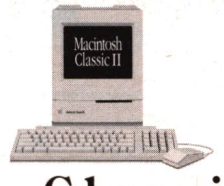

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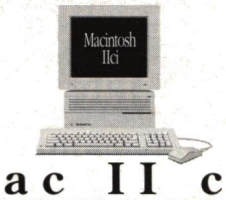

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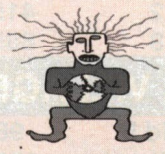

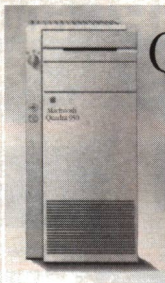

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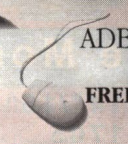

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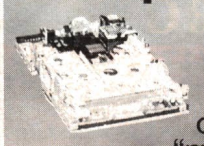

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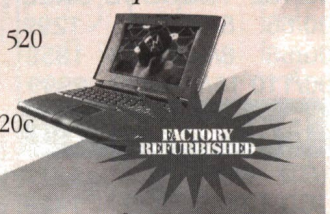

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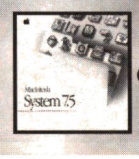

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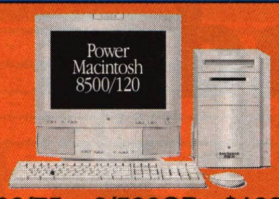

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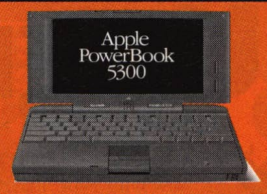

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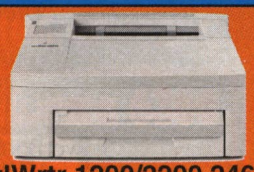
Apple Printers



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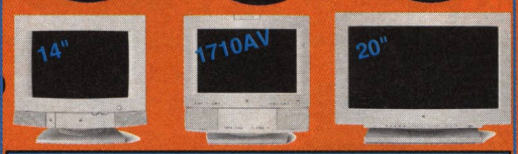

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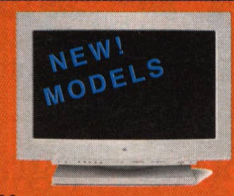

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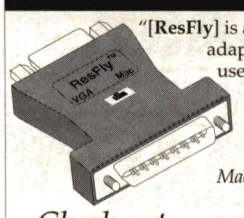

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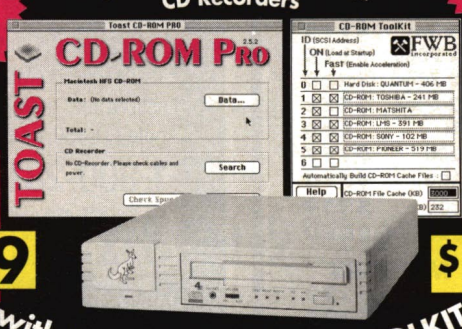

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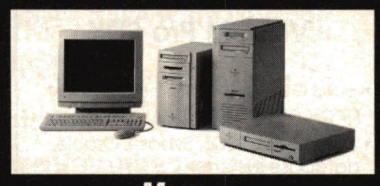

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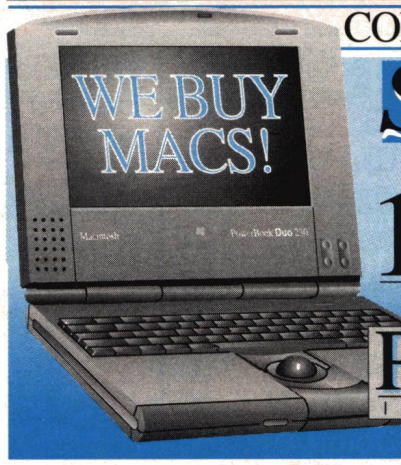

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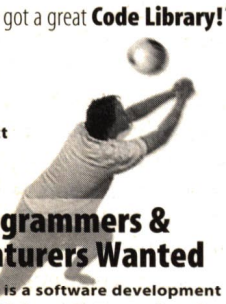

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OS

From Page 1

use the processor's cache more efficiently. Sources said the new Finder will speed file copies, particularly when copying large numbers of small files.

Sources said the update will come with a faster version of the AppleShare Workstation client, which will feature an improved caching scheme.

The update is expected to include a Power Mac-native Resource Manager and native and 680x0 versions of the Modern Memory Manager, which will speed 680x0 emulation. System 7.5.3 will also reportedly reduce the launch times of applications when virtual memory is active.

According to sources, System 7.5.3 will come with a full suite of updated control panels, extensions and printer software. The new system is expected to upgrade portions of AppleScript, ColorSync and text-to-speech processing.

The new OS will have native versions of Apple Guide and SCSI Manager, according to sources. Although Apple has tabled its PowerTalk development efforts (see 01.15.96, Page 16), System 7.5.3 will reportedly update PowerTalk's Mailbox and Catalogs extensions.

Users, however, will have to wait until later this year for other additions to the system: OpenDoc and a new version of QuickDraw 3D are expected to become part of the OS in late spring or early summer.

"My experience with the [pre-release versions of the system software] have been exceptional," said a beta user. "The emulator is much faster, and the speed of the new Finder seems to be approaching the speed of [Connectix Corp.'s] Speed Doubler.

"The big thing is Open Transport," the beta user said. "It is much stabler, but there are still some holes with [Point-to-Point Protocol]."

Apple declined to comment. □

System 7.5.3 features

Open Transport 1.1: Has bug fixes; now for 68030 and 68040 Macs; optimized for faster networking links

Updated Finder: Speeds file copying; improves Finder speed on 68040 and Power Macs

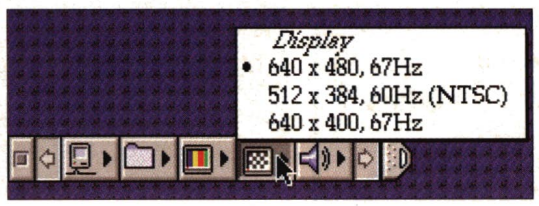
Modern Memory Manager: Improves performance of emulated applications

AppleShare Workstation: Client is faster; caching improved

Virtual memory: Faster launch times for applications when virtual memory is on

Control Strip: Lets users control attributes such as file sharing and volume

More native OS parts: Apple Guide, Resource Manager and SCSI Manager now native



All Macs will reportedly gain the Control Strip, now available only for PowerBooks and PCI Macs. It will let users adjust monitor bit depth, control speaker volume, and turn AppleTalk and file sharing on and off.

PCI

From Page 1

bination Mac and Intel-standard PC product costs $269, while its PC-only card goes for $159; Asanté said it has no plans for a Mac-only card. Sonic Systems Inc. of Sunnyvale, Calif., recently announced a $299 dual-speed card.

Lite-On said it was able to reduce prices by developing its own chips and drivers. The company manufactures its hardware in Taiwan.

"[Lite-On's] pricing is super," said Bobbi Murphy, an analyst at Dataquest Inc. in San Jose. "You've always had to pay a premium in the Mac environment, and now you don't have to."

When told of Lite-On's prices, Paul Smith, Asanté vice president of marketing, said the company did not plan to lower prices at this time. He said Asanté's drivers and bundled utilities, such as NetDoubler, add value to its products (see story, Page 16). "Fast Ethernet is not a slam-dunk, so [users] really will have to look at features," Smith said.

Designed to smooth migration to Fast Ethernet, dual-speed 10/100BASE T cards work over both 10- and 100-Mbps Ethernet networks. Autosensing mechanisms in the cards allow them to determine the speed of the hub to which they are attached and then configure themselves appropriately.

In addition to its forthcoming Ethernet cards, Lite-On said it will deliver in March a pair of 12-port Fast Ethernet hubs. A $1,299 model will use the company's chip, and a $1,499 version will run a controller from National Semiconductor Corp.

Lite-On Communications Inc. of Milpitas, Calif., can be reached at (408) 945-4111 or (800) 785-4831; fax (408) 945-4110. □

Agfa

From Page 1

month announced a new Desktop Solutions Division (see 01.08.96, Page 24).

"The next logical step [for Agfa] would be to either set up a division or ramp up more conservatively," said Kristy Holch, principal of InfoTrends Research Group Inc. of Plymouth, Mass. "The scanning market is about to explode ... and [an entry-level device] requires a different marketing scheme."

Sources close to the company said Agfa originally tested the waters for such a move two years ago when it released the StudioScan, which now carries a street price of about $600. While Agfa is reportedly planning to discontinue the original StudioScan, it will continue to market the $750 StudioScan IIsi (see 07.24.95, Page 10); in fact, the IIsi may join the SnapScan as part of the low-end marketing push.

"[Agfa] discovered that its name and high-quality reputation were helping the [StudioScan] do really well," Holch said. "[Agfa] was encouraged by that and [is] trying to make the big decision — do we go after the mass market or stick with the tried-and-true [high-end] graphics market?"

Financial pressure may be prompting Agfa to make the leap to the low end. According to analysts, hardware sales on the high-end side of the imaging market are considerably flatter than in years past.

Analysts said most pre-press hardware sales supplement or replace hardware in established sites. Agfa and the other premiere pre-press players will have to find other midrange and entry-level outlets because there is a glut of product in high-end pre-press.

While the low-end imaging market is well-populated by industry heavies such as Hewlett-Packard Co., UMAX Technologies Inc. and Microtek Lab Inc., Holch said Agfa stands a good chance for success. "[Agfa] has good-quality products and brand recognition," she said. "If the price is right, they will be able to compete, and they will be successful."

Agfa declined to comment. □

Microsoft ships Web browser

By James Staten

Microsoft Corp. last week released the first beta version of its free Web browser for the Mac. The new software introduces Mac users to several new HTML tags.

Internet Explorer 2.0 is based on Spyglass Inc.'s Enhanced Mosaic Web browser but adds several enhancements, such as embedded sound and video players. Explorer supports most HTML 2.0, HTML 3.0 and Netscape Navigator markup tags. It also supports several new tags created by Microsoft for embedding sound and video files, delivering client-side image maps, and formatting text and tables.

A series of marquee tags allows text to scroll automatically across the Web page. Table-formatting tags allow developers to choose the position of a table or align it with other elements on the page. The tags also let the user choose a background color for the table, color its border or give the border a 3-D appearance.

Explorer supports Network News Transfer Protocol, FTP and Gopher. PowerPC and 680x0 versions are available; the Power Mac version supports MacTCP and Open Transport for network connections; the 680x0 version supports MacTCP only.

The browser can be downloaded from Microsoft's Web site at http://www.microsoft.com/windows/ie/mac/macdl.htm. A final version is expected by March.

Microsoft Corp. of Redmond, Wash., is at (206) 882-8080 or (800) 426-9400; fax (800) 727-3351; info@microsoft.com. □

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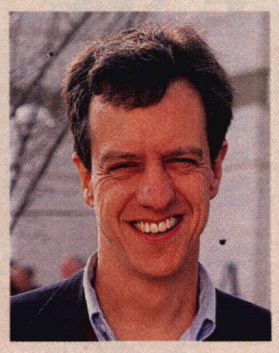
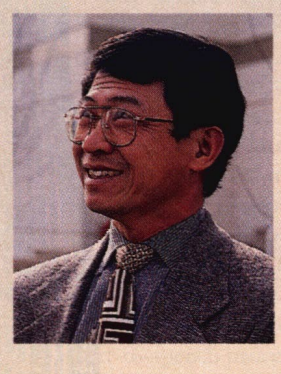
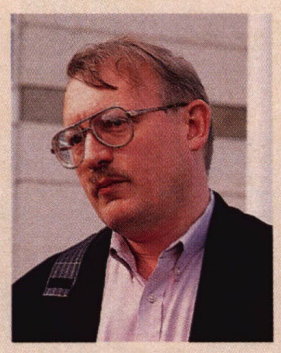
Shareholders take stock of Apple



"I came here to get answers, but there were none. There's no plan as far as I could tell."
— Jim Stifler



"The company should be sold. It's the only way it can survive."
— Dao Le



"Apple tried to do a nice job of spin control. But I'm glad to see such a rebellious crowd."
— Martin Haeberli

"I love Apple products and want it to succeed. It's distressing for Apple's board to blame external factors rather than take a look at itself."
— Tracey Grown

PHOTOS BY ED CALDWELL

Shareholders *From Page 1*

come from outsourcing some manufacturing, streamlining R&D and eliminating unprofitable low-end Mac models. "Nothing around this place is sacred," he said. "Everything is under scrutiny.

"The old economic model for PCs in the '80s doesn't work anymore," Spindler said. But the company will not abandon any of its current markets, even those that are less profitable. "Quote my lips: Apple is not getting out of the consumer market," he said.

Spindler contended that the company is well-positioned in key growth markets, such as education, home and creative professionals in business. "The two common threads in these markets are multimedia and the Internet" where the Mac has a strong presence, he said.

The company's presentation did not assuage many in the audience, who were concerned with quarterly losses, plummeting margins, thinning of the executive ranks and developers fleeing the platform.

"I came here to get answers, but there were none," said Jim Stifler of San Francisco, an Apple shareholder for 15 years. "There's no plan as far as I could tell."

Martin Haeberli, a former Apple employee of 14 years, said: "Apple tried to do a nice job of spin control. But I'm glad to see such a rebellious crowd."

Bob Firth, a self-described bitter shareholder, said: "Apple's got a long way to go before it turns a profit. They need a new CEO for starters."

Several shareholders complained that Apple's management offered no self-criticism, instead blaming external market conditions.

"You have mismanaged our assets, you have wasted a valuable franchise, and you have brought a great company to its knees," said Orin McCluskey, a New York investment manager with 10,000 shares. "Mr. Spindler, it is time to go." The room erupted with applause; Apple's CEO listened impassively.

Steven Patt, a former Mac developer and current Apple shareholder, slammed Apple for "treating developers as profit centers [rather than] as partnerships." He noted the high cost of developing for Apple compared with developing for Microsoft Corp.

After being criticized for lackluster marketing efforts, Spindler said: "We need to do much more 'in your face' marketing."

Without substantive details on a recovery plan, some shareholders pinned their hopes on an acquisition. "The company should be sold. That's the only way it can survive," said stockholder Dao Le.

In a press conference after the meeting, Spindler reacted angrily to a question about his leadership. "What do you want to hear? A mea culpa? I take responsibility," he said.

Markkula rejected any suggestion that his hand-picked CEO would be forced out. "Michael has the full support of this board," he said. "I like this guy. He's a very good person."

Meanwhile, Markkula declined to comment on reports that Apple would be acquired by Sun Microsystems Inc. of Mountain View, Calif., or any other company. But he did say, "Apple is not for sale."

However, sources close to the company said that not being for sale simply means the board has not put Apple on the auction block. As has been true for several years, the company continues to have discussions with any serious bidders, and in times of turmoil, suitors become more plentiful. □

Apple *From Page 1*

the last several years," said Pieter Hartsook, editor of The Hartsook Letter in Alameda, Calif.

Daniel Kunstler, an analyst at J.P. Morgan Securities Inc. of San Francisco, who downgraded his rating on Apple stock after what he called an "anemic" message from Spindler about the company's restructuring plans, said Apple desperately needs a new management team with a focused strategy. "What I want to hear from Apple is this: They will go after clone makers boldly, leverage Copland and OpenDoc, and manage their channels better," he said. "They have no plan."

Industry observers have found serious flaws with Apple's plan to save itself.

▸ **Reducing costs.** Despite 1,300 layoffs that are expected to reduce expenses by 10 percent by the fall, the cuts could have been deeper, industry observers said.

▸ **Fewer models.** Spindler vowed to whittle models from Apple's cluttered low-end and midrange lineups. Amy Wohl, editor of TrendsLetter in Narberth, Pa., said the tactic has been tried before with minimal success. "I still can't differentiate some models, and I cover Apple for a living," she said. "Imagine how it must be for consumers."

▸ **Signing up clone makers.** For more than a year, Apple executives said more licensing agreements are imminent. "Where are they?" Kunstler said. "Apple needs more agreements than the five they have. They need to step it up."

▸ **Focus on key markets.** Spindler said Apple is adding the Internet to its core markets. "Apple is being dragged into the Internet rather than leaping into it," said shareholder Tracey Grown.

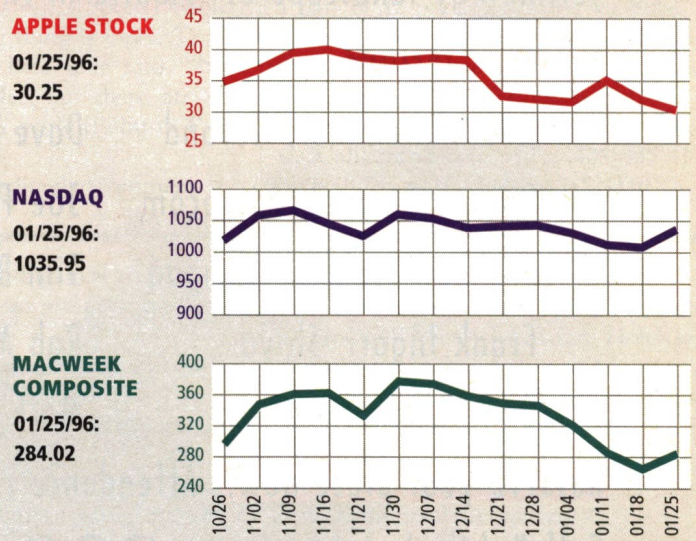
Industry observers, who note Apple's installed base of 22 million users, unusually strong customer loyalty, superior technology and record first-quarter sales of $3.15 billion, offered their suggestions for the company to jumpstart its $11 billion business.

They said Apple needs to balance its lower-margin products with pricier products such as workstations, servers and software; bring in a chief financial officer, chief operating officer and marketing head to run day-to-day operations; and divide businesses — namely, Claris Corp., peripherals, education, consumer, general business, publishing and multimedia, and Internet — into units that are responsible for their own profits and losses.

Other observers said they believe the problems emanate from the very top of the company. "Apple is a great company, but Spindler has completely mismanaged it," said Jerome Dodson, portfolio manager of Parnassus Fund, a mutual fund in San Francisco that holds about 340,000 Apple shares. "He should step down immediately." □

Andrew Gore and Mark Hall contributed to this report.

StockWatch



	01.25.96 CLOSE	WEEKLY % CHANGE
Apple	30.25	-5.28
MacWEEK Composite*	284.02	7.60
SOFTWARE DEVELOPERS		
Adobe	39.13	9.82
Caere	6.75	0.00
CE Software	2.69	-8.51
Graphsoft	5.75	0.00
Insignia	5.75	-2.13
Intuit	57.75	6.45
Macromedia	41.50	12.93
Microsoft	89.38	2.00
Novell	12.25	-11.71
Oracle	47.75	7.30
Symantec	11.00	4.76
STORAGE		
Conner	25.00	13.64
Iomega	50.13	38.28
Maxtor	6.63	0.00
Pinnacle	14.00	0.00
Quantum	18.50	5.71
Seagate	56.88	13.47
SyQuest	7.75	1.64

	01.25.96 CLOSE	WEEKLY % CHANGE
PERIPHERALS VENDORS		
AmeriQuest	0.88	16.67
Asanté	6.44	5.10
Focus	4.69	-17.58
Global Village	14.69	-0.42
HP	81.50	8.31
QMS	5.13	-12.77
Radius	1.94	-6.06
Shiva	69.50	16.32
Tektronix	45.50	6.12
Truevision	5.63	4.65
DISTRIBUTORS		
CompUSA	35.63	31.94
IE	5.06	-13.83
Merisel	3.75	-3.23
Tech Data	13.75	0.92
INDUSTRY INDICATORS		
Compaq	47.50	5.85
IBM	104.38	8.44
Intel	54.63	7.11
Motorola	52.88	4.96
SGI	26.88	1.90
NASDAQ	1035.95	2.85

**The MacWEEK Composite is calculated by adding the stock prices of the following companies: Apple, Adobe, Asanté, Caere, CE Software, Global Village, Intuit, Macromedia, Radius, Shiva, SyQuest and Truevision. Source: Nordby International Inc.*

ZD Net/Mac this week

ZDNet On-line special: Apple's future

Has last week's swirl of rumors left you confused and apprehensive about the fate of Apple? If so, then fire up your Web browser and visit http://www.zdnet.com/~macuser/applefuture/. Here you'll see what MacWEEK and MacUser editors have to say about Apple's long-term prospects, in special opinion pieces available exclusively on-line. You'll also find the latest news from MacWEEK, reports from the mainstream media and Apple's official statements. CompuServe users can find these stories in ZD Net's MacWEEK and MacUser forums (go zmc:macweek and zmc:macuser).

Where to find us on-line

In ZD Net/Mac on CompuServe, you'll find the MacWEEK Forum at go zmc:macweek and the free MacWEEK News menu at go zmc:mwnews. On the Web, please visit our home page at http://www.zdnet.com/~macweek/.

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Looking ahead

SOLUTIONS IN THE WORKS

We want to know the difficulties, successes and failures you've experienced in the areas below. Send your comments to solutions@macweek.com. Please include information on how to contact you.

- What are your experiences upgrading software and hardware? Did you choose to upgrade, replace or stick with what you have?
- If you run a small business, what type of low-end e-mail packages are you using? Are they adequate or do you feel like something is missing?

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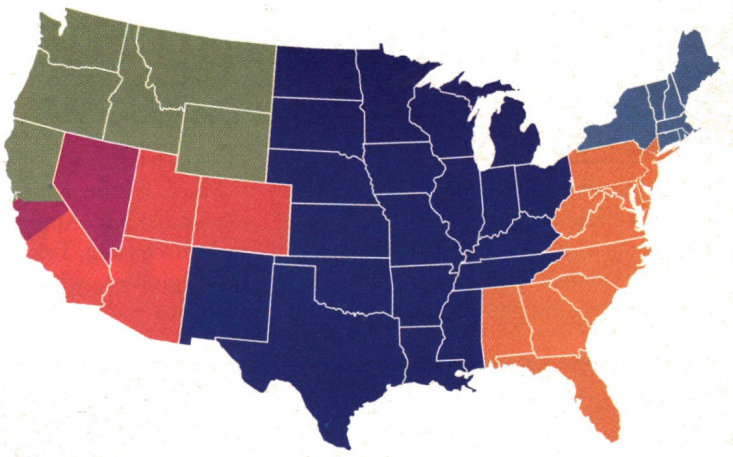
- Byte by Byte's Sculpt 3D 4.1
- Everyware's Tango 1.0
- Day-Timer Organizer 2.0



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Rappelling the Tower of Babel

Every generation has its own favorite sport: The '40s had baseball; the '50s, Hula Hoops; the '60s, Frisbees; the '70s, promiscuity; the '80s, bungee-jumping into national debt. Now in the mid-'90s, most of the country seems to have caught on to a whole new athletic fad: kicking Apple around like a Hackey Sack.

Much as the Knife hates to join the media dog pile, Apple's execs just make it so darn *tempting*. Take Michael "Terminator" Spindler, who attempted to break some ice with the ladies at last week's stress-wracked shareholders meeting.

After one attendee asked if Apple might create the post of vice president in charge of marketing to women, the gimlet-eyed chief executive announced that instead, he hoped to "speak to women in their own language." Given Spindler's intriguing approach to English, the Knife awaits the results of this latest linguistic experiment with queasy fascination.

Rumors and rumors of rumors

Sure, Apple's self-inflicted wounds are enough to make the Cupertino campus look a little like the last scene of "Bonnie and Clyde." Nevertheless, the number of amateurs taking potshots at the company reassures the Knife that rumor-mongering is best left in the hands of trained professionals.

To dramatize this point, the Knife has compiled some of the most preposterous tales to come over the transom in recent weeks. Caveat reader: The Knife endorses *none* of the following hallucinations.

Who's on first?

Take the matter of a new Apple CEO in the event Herr Spindler yanks the rip cord on that golden parachute. The misinformation campaign has posited some unusual candidates to fill his formidable seat cushion.

While Apple may be under siege, the Knife seriously doubts that Colin Powell will actually want to clamber to the helm. After all, the general emeritus has already turned down the chance to take command of the federal government, an institution whose faux pas make Apple's misdeeds look like small potatoes. Nor are alumni Dan Eilers or Steve Jobs likely to ride back out of the sunset. Jobs is making plenty of money animating Mr. Potato Head, and Eilers is fielding more offers than he knows what to do with.

Think one CEO hasn't created enough havoc in Cupertino? How about three? Some disseminators insist that Apple is contemplating creating an Office of the President, featuring a tag-team lineup of David Nagel, Jim Buckley and Fred Forsyth. Considering what happened when Yugoslavia traded in Marshal Tito for a committee, the Knife is stockpiling nonperishable provisions just in case this Doomsday scenario actually sees the light of day.

Apple peddling

Furthermore, there's the question of an appropriate suitor for Apple. Perhaps some expansion-minded Japanese industrial giant? Nope, that was MacWEEK. But seriously, folks, rumors that Sony is planning a hostile takeover seem to come from somewhere in the subether, where Elvis is still playing a casino lounge owned by Jimmy Hoffa.

Maybe it's those liberal Dutch cannabis laws: Some rumors wafting Knifeward maintain that Flemish hardware dealer Philips is once again rolling up a joint agreement with Sony. The objective: to suck up Apple without exhaling. The real dope: Both companies lost the corporate munchies when their plans went up in smoke two years ago.

Finally, take HP — please. Some Republican ideologues may be hoping to see Palo Alto annex Cupertino, but a company that prides itself on efficiency and decisive leadership is unlikely to find it has much in common with today's Apple. □

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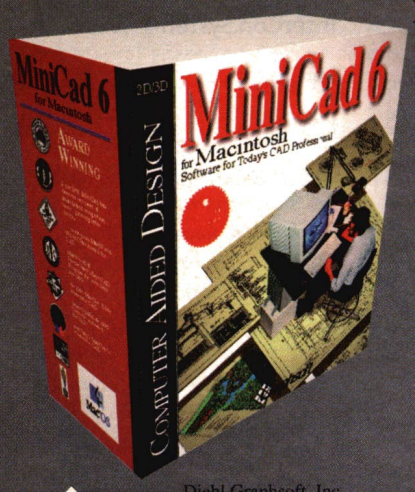

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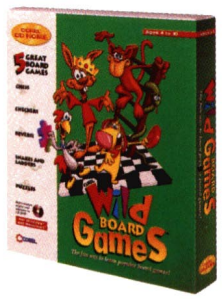

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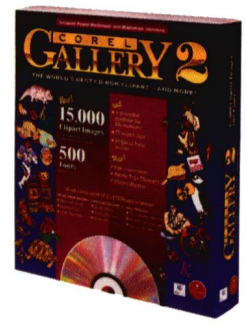

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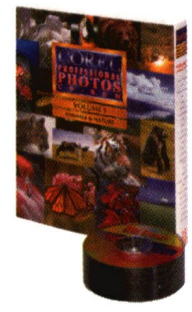

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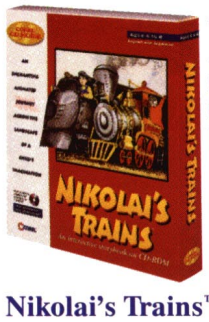

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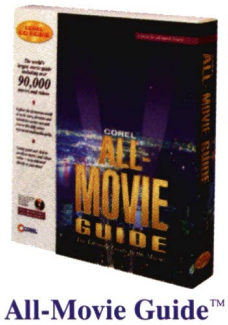

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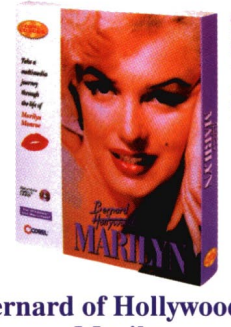

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